

2. AMENDMENT/MODIFICATION NO. 0002	3. EFFECTIVE DATE 17 NOV 99	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. <i>(If applicable)</i>
6. ISSUED BY  Department of the Army Corps of Engineers Fort Worth District		7. ADMINISTERED BY <i>(If other than Item 6)</i>	

8. NAME AND ADDRESS OF CONTRACTOR <i>(No., street, county, State and ZIP Code)</i>	(✓)	9A. AMENDMENT OF SOLICITATION NO. DACA63-00-B-0010
	(X)	9B. DATED <i>(SEE ITEM 11)</i> 02 NOVEMBER 1999
		10A. MODIFICATION OF CONTRACTS/ORDER NO.
		10B. DATED <i>(SEE ITEM 13)</i>
CODE		FACILITY CODE

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers tended.  is extended,  is not ex-

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

- (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: <i>(Specify authority)</i> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES <i>(such as changes in paying office, appropriation date, etc.)</i> SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER <i>(Specify type of modification and authority)</i>

**E. IMPORTANT:** Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

The Solicitation for Force XXI Soldier Development Center - Phase II, Fort Hood, Texas, is amended as follows:

See Continuation Sheets.

**NOTE:** The Bid Opening Date and Time remains "02 December 1999, at 2 p.m. local time," as previously announced.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER <i>(Type or print)</i>	16A. NAME AND TITLE OF CONTRACTING OFFICER <i>(Type or print)</i>
15B. CONTRACTOR/OFFEROR  _____ <i>(Signature of person authorized to sign)</i>	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA BY _____ <i>(Signature of Contracting Officer)</i>	16C. DATE SIGNED

Item 14. Continued.

A. CHANGES TO PROJECT TABLE OF CONTENTS.

1. Replace the Project Table of Contents with the attached new Project Table of Contents, each page bearing the notation "ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010."

B. CHANGES TO WAGE RATES.

2. Following the Contract Clauses page 00700-134, replace the note concerning rates of wages with the attached pages 00710-1 through 00710-18, each page bearing the notation "ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010."

C. CHANGES TO AFFIRMATIVE ACTION PLAN.

3. Following the Wage Rate Note, replace the note concerning the Affirmative Action Plan with the attached pages 00720-1 through 00720-2, each page bearing the notation "ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010."

D. CHANGES TO THE SPECIFICATIONS.

4. New Sections - Add the following accompanying new section, bearing the notation "ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010," and add to the Table of Contents:

<u>SECTION NO.</u>	<u>TITLE</u>
06101	BATT INSULATION TO THE CEILING

5. Replacement Sections - Replace the following sections with the accompanying new sections of the same number and title, each bearing the notation "ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010:"

<u>SECTION NO.</u>	<u>TITLE</u>
01610	PROPRIETARY PRODUCTS
04735	CAST STONE
05500	MISCELLANEOUS METAL
06410	CUSTOM CASEWORK
07240	EXTERIOR FINISH SYSTEM
07600	SHEET METALWORK, GENERAL
08120	ALUMINUM DOORS AND FRAMES

08353	ACCORDION PARTITIONS, FOLDING DOORS, AND OPERABLE PARTITIONS
08700	BUILDERS' HARDWARE
09000	BUILDING COLOR AND FINISH SCHEDULE
09310	CERAMIC TILE
09680	CARPET
09720	WALLCOVERINGS
10101	MISCELLANEOUS ITEMS
10160	TOILET PARTITIONS AND VANITY UNITS
10260	WALL AND CORNER PROTECTION
10270	RAISED FLOOR SYSTEM
10800	TOILET ACCESSORIES

**E. CHANGES TO THE DRAWINGS:**

6. Replacement Drawings.- Replace the drawings listed below with the attached new drawings of the same number, bearing the notation "AM #0002":

a32_2.cal	Seq 89	A32	ROOM FINISH SCHEDULE
s01_2.cal	Seq 110	S1	STRUCTURAL NOTES AND MISCELLANEOUS DETAILS
s02_2.cal	Seq 111	S2	FOUNDATION PLAN - AREA G
s03_2.cal	Seq 112	S3	FOUNDATION PLAN - AREA H
s04_2.cal	Seq 113	S4	FOUNDATION PLAN - AREA J
s05_2.cal	Seq 114	S5	FOUNDATION SECTIONS AND DETAILS 1
s06_2.cal	Seq 115	S6	FOUNDATION SECTIONS AND DETAILS 2
s07_2.cal	Seq 116	S7	FOUNDATION DETAILS 3
s08_2.cal	Seq 117	S8	FOUNDATION DETAILS 4
s09_2.cal	Seq 118	S9	FOUNDATION DETAILS 5
s10_2.cal	Seq 119	S10	2ND FLOOR FRAMING PLAN AREA G
s11_2.cal	Seq 120	S11	2ND FLOOR FRAMING PLAN AREA H
s12_2.cal	Seq 121	S12	2ND FLOOR FRAMING PLAN AREA J
s13_2.cal	Seq 122	S13	2ND FLOOR FRAMING SECTIONS 1
s14_2.cal	Seq 123	S14	2ND FLOOR FRAMING SECTIONS 2
s15_2.cal	Seq 124	S15	2ND FLOOR FRAMING SECTIONS 3
s16_2.cal	Seq 125	S16	STAIR FRAMING PLANS AND SECTIONS
s17_2.cal	Seq 126	S17	ROOF FRAMING PLAN AREA G
s18_2.cal	Seq 127	S18	ROOF FRAMING PLAN AREA H
s19_2.cal	Seq 128	S19	ROOF FRAMING PLAN AREA J
s20_2.cal	Seq 129	S20	ROOF FRAMING SECTIONS 1
s21_2.cal	Seq 130	S21	ROOF FRAMING SECTIONS 2
s22_2.cal	Seq 131	S22	MISCELLANEOUS FRAMING DETAILS 1

END OF AMENDMENT

**APPLICATION OF WAGE DECISIONS**

**Solicitation No. DACA63-00-B-0010**

**Project: Force XXI Solder Development Center – Phase II**

**Location: Fort Hood, Texas  
Bell/Coryell Counties**

**I. PAYROLL RECORDS ARE REQUIRED TO BE SUBMITTED FOR ALL WORK PERFORMED UNDER THE DAVIS-BACON ACT PROVISIONS. IT IS A REQUIREMENT THAT THE CONTRACT NUMBER, AND WAGE DECISION NUMBER, APPLICABLE TO THE WORK PERFORMED BE SHOWN ON ALL PAYROLLS AND PAYROLL RECORDS.**

**1. Davis-Bacon Act Wage Decision TX990051, Building Construction Projects**, is applicable to the construction, alteration, painting, or repair of buildings, installations within buildings, appurtenances to buildings, foundations for buildings, excavation and fill for buildings, and utilities within five feet of buildings.

**2. Davis-Bacon Act Wage Decision TX990043, Heavy and Highway Construction Projects**, is applicable to utilities more than five feet from buildings and any other construction requirements not shown in paragraph 1 above.

**II. SERVICES – SERVICE CONTRACT ACT**

**THE SERVICE CONTRACT ACT (SCA) WAGE DETERMINATION WILL BE INCLUDED UNDER THIS CONTRACT FOR SERVICES SUCH AS: DEMOLITION OF FORTY (40) TEMPORARY BUILDINGS (151,354 SF) TO INCLUDE HAZARDOUS MATERIAL ABATEMENT. Service Contract Act payroll records are required to be kept by the prime contractor for a minimum of three years from the date of completion. PAYROLL RECORDS ARE NOT REQUIRED TO BE SUBMITTED TO THE CORPS OF ENGINEERS FOR WORK PERFORMED UNDER THE SERVICE CONTRACT ACT.**

**SERVICE CONTRACT ACT WAGE DETERMINATION NO. 94-2523, Revision No. 10, dated 06/24/1999, will be included for demolition services to be performed in Bell/Coryell Counties, Texas. The SCA wage determination 94-2523, Revision 10,**

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010  
**included in this solicitation package is applicable to the first year of the contract. At the beginning of each renewal option period applicable to the contract, a new SCA wage determination will be issued.**

**NOTE:**

**(1) PAYROLL RECORDS ARE REQUIRED , UNDER THE DAVIS-BACON ACT, FOR ALL CONSTRUCTION WORK.**

**(2) THE WAGE DECISION NUMBER APPLICABLE TO THE WORK TO BE PERFORMED IS TO BE SHOWN ON ALL CERTIFIED PAYROLL RECORDS.**

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

**General Decision Number TX990051**

Superseded General Decision No. TX980051

State: TEXAS

Construction Type:  
**BUILDING**

County(ies):  
BELL CORYELL

**BUILDING CONSTRUCTION PROJECTS** (does not include residential construction consisting of single family homes and apartments up to and including 4 stories).

Modification Number	Publication Date
0	03/12/1999
1	04/16/1999
2	09/03/1999
<b>3</b>	<b>10/08/1999</b>

COUNTY(ies):  
BELL CORYELL  
ELEC0072A 08/26/1999

	Rates	Fringes
ELECTRICIANS	18.50	3.40+3.5%
CABLE SPLICERS	19.50	3.40+3.5%

\* IRON0482B 06/01/1999

	Rates	Fringes
IRONWORKERS, Structural	15.85	4.35

SUTX1067A 11/16/1991

	Rates	Fringes
AIR CONDITIONING AND HEATING		
MECHANICS (Excluding Duct Work)	9.10	
BRICKLAYERS	14.00	
CARPENTERS (Including Drywall		
Hangers)	11.58	
CEMENT MASONS	10.50	
GLAZIERS	7.00	.46
INSULATION INSTALLERS (Batt		
and Blown)	8.31	.54
IRONWORKERS, Reinforcing	11.00	
LABORERS (Including Mason		
Tenders)	5.61	
LATHERS	15.33	
PAINTERS	8.32	.13
PLASTERERS	12.78	
PLUMBERS AND PIPEFITTERS		
(Excluding HVAC Work)	10.07	
POWER EQUIPMENT OPERATORS:		
Backhoes	8.54	
ROOFERS	7.78	

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

SHEET METAL WORKERS (Including

HVAC Work)	9.79	
SOFT FLOOR LAYERS	13.46	.26
TILE SETTERS	15.00	.25

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).  
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In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

**END OF GENERAL DECISION**

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010  
**General Decision Number TX990043**

Superseded General Decision No. TX980043

State: TEXAS

Construction Type:

**HEAVY  
HIGHWAY**

County(ies):

<b>BELL</b>	<b>CORYELL</b>	TRAVIS
BEXAR	GUADALUPE	WILLIAMSON
BRAZOS	HAYS	
COMAL	MCLENNAN	

**Heavy (excluding tunnels and dams) and Highway Construction Projects** (does not include building structures in rest area projects). \*NOT TO BE USED FOR WORK ON SEWAGE OR WATER TREATMENT PLANTS OR LIFT/PUMP STATIONS IN BELL, CORYELL, McLENNAN AND WILLIAMSON COUNTIES.

Modification Number	Publication Date
0	03/12/1999

COUNTY(ies):

BELL	CORYELL	TRAVIS
BEXAR	GUADALUPE	WILLIAMSON
BRAZOS	HAYS	
COMAL	MCLENNAN	

SUTX2042A 03/26/1998

	Rates	Fringes
AIR TOOL OPERATOR	8.08	
ASPHALT HEATER OPERATOR	11.00	
ASPHALT RAKER	8.00	
ASPHALT SHOVELER	7.97	
BATCHING PLANT WEIGHER	11.00	
CARPENTER	10.80	
CONCRETE FINISHER-PAVING	9.57	
CONCRETE FINISHER-STRUCTURES	8.83	
CONCRETE RUBBER	8.52	
ELECTRICIAN	16.25	
FLAGGER	6.86	
FORM BUILDER-STRUCTURES	8.77	

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

FORM LINER-PAVING & CURB	8.00
FORM SETTER-PAVING & CURB	8.68
FORM SETTER-STRUCTURES	8.73
LABORER-COMMON	7.12
LABORER-UTILITY	7.99
MECHANIC	12.15
OILER	11.40
SERVICER	8.44
PAINTER-STRUCTURES	10.00
PIPE LAYER	8.27
ASPHALT DISTRIBUTOR OPERATOR	9.70
ASPHALT PAVING MACHINE	9.26
BROOM OR SWEEPER OPERATOR	7.12
BULLDOZER	9.28
CONCRETE CURING MACHINE	7.79
CONCRETE FINISHING MACHINE	11.00
CONCRETE PAVING SAW	9.79
SLIPFORM MACHINE OPERATOR	11.15
CRANE, CLAMSHELL, BACKHOE, DERRICK, DRAGLINE, SHOVEL	10.12
FOUNDATION DRILL OPERATOR TRUCK MOUNTED	15.00
FRONT END LOADER	8.86
HOIST - DOUBLE DRUM & LESS	10.81
MIXER	7.12
MIXER - CONCRETE PAVING	11.00
MOTOR GRADER FINE GRADE	12.37
MOTOR GRADER	11.14
PAVEMENT MARKING MACHINE	8.31
PLANER OPERATOR	15.75
ROLLER, STEEL WHEEL PLANT-MIX PAVEMENTS	7.73
ROLLER, STEEL WHEEL OTHER FLATWHEEL OR TAMPING	7.33
ROLLER, PNEUMATIC, SELF PROPELLED	7.17
SCRAPERS	8.38
TRACTOR-CRAWLER TYPE	9.40
TRAVELING MIXER	7.92
TRENCHING MACHINE, HEAVY	9.92
WAGON-DRILL/BORING MACHINE	8.00
REINFORCING STEEL SETTER PAVING	14.50
REINFORCING STEEL SETTER STRUCTURES	10.61
STEEL WORKER-STRUCTURAL	11.73
SPREADER BOX OPERATOR	8.55
WORK ZONE BARRICADE	8.29

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

SIGN INSTALLER	7.97
TRUCK DRIVER-SINGLE AXLE LIGHT	8.32
TRUCK DRIVER-SINGLE AXLE HEAVY	7.954
TRUCK DRIVER-TANDEM AXLE SEMI- TRAILER	8.02
TRUCK DRIVER-LOWBOY/FLOAT	10.12
WELDER	11.02

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
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U. S. Department of Labor  
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Washington, D. C. 20210

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

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U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

**END OF GENERAL DECISION**

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

WAGE DETERMINATION NO: 94-2523 REV (10) AREA: TX,WACO

WAGE DETERMINATION NO: 94-2523 REV (10) AREA: TX,WACO

\*\*\*FOR OFFICIAL USE ONLY BY FEDERAL AGENCIES PARTICIPATING IN MOU WITH DOL\*\*\*

REGISTER OF WAGE DETERMINATION UNDER  
THE SERVICE CONTRACT ACT  
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR  
EMPLOYMENT STANDARDS ADMINISTRATION  
WAGE AND HOUR DIVISION  
Washington, D.C. 20210

Wage Determination No.: 94-2523

Revision No.: 10

Division of

Wage Determinations

Date of Last Revision: 06/04/1999

State: Texas

Areas: Texas COUNTIES OF Anderson, **Bell**, Bosque, Brazos, **Coryell**, Falls,  
Freestone, Hamilton, Hill, Leon, Limestone, McLennan, Mills,  
Robertson

\*\* Fringe Benefits Required For All Occupations Included In  
This Wage Determination Follow The Occupational Listing \*\*

OCCUPATION CODE AND TITLE	MINIMUM HOURLY WAGE
Administrative Support and Clerical Occupations:	
01011 Accounting Clerk I	\$ 7.33
01012 Accounting Clerk II	\$ 8.00
01013 Accounting Clerk III	\$ 9.70
01014 Accounting Clerk IV	\$ 10.91
01030 Court Reporter	\$ 12.77
01050 Dispatcher, Motor Vehicle	\$ 11.67
01060 Document Preparation Clerk	\$ 8.51
01070 Messenger (Courier)	\$ 7.37
01090 Duplicating Machine Operator	\$ 8.51
01110 Film/Tape Librarian	\$ 10.05
01115 General Clerk I	\$ 7.67
01116 General Clerk II	\$ 8.62
01117 General Clerk III	\$ 10.62
01118 General Clerk IV	\$ 11.89
01120 Housing Referral Assistant	\$ 12.25
01131 Key Entry Operator I	\$ 7.93
01132 Key Entry Operator II	\$ 11.30
01191 Order Clerk I	\$ 8.04
01192 Order Clerk II	\$ 8.78
01261 Personnel Assistant (Employment) I	\$ 9.41
01262 Personnel Assistant (Employment) II	\$ 10.85
01263 Personnel Assistant (Employment) III	\$ 12.91
01264 Personnel Assistant (Employment) IV	\$ 15.34
01270 Production Control Clerk	\$ 14.09
01290 Rental Clerk	\$ 10.05
01300 Scheduler, Maintenance	\$ 10.05
01311 Secretary I	\$ 10.05
01312 Secretary II	\$ 11.80
01313 Secretary III	\$ 12.77
01314 Secretary IV	\$ 13.79
01315 Secretary V	\$ 15.45

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

01320	Service Order Dispatcher	\$ 10.05
01341	Stenographer I	\$ 10.10
01342	Stenographer II	\$ 12.91
01400	Supply Technician	\$ 14.90
01420	Survey Worker (Interviewer)	\$ 11.67
01460	Switchboard Operator-Receptionist	\$ 8.19
01510	Test Examiner	\$ 11.80
01520	Test Proctor	\$ 11.80
01531	Travel Clerk I	\$ 8.14
01532	Travel Clerk II	\$ 8.80
01533	Travel Clerk III	\$ 9.38
01611	Word Processor I	\$ 9.09
01612	Word Processor II	\$ 10.27
01613	Word Processor III	\$ 11.93
Automatic Data Processing Occupations:		
03010	Computer Data Librarian	\$ 10.11
03041	Computer Operator I	\$ 8.31
03042	Computer Operator II	\$ 11.60
03043	Computer Operator III	\$ 13.68
03044	Computer Operator IV	\$ 15.16
03045	Computer Operator V	\$ 16.77
03071	Computer Programmer I 1/	\$ 14.81
03072	Computer Programmer II 1/	\$ 17.79
03073	Computer Programmer III 1/	\$ 20.08
03074	Computer Programmer IV 1/	\$ 24.28
03101	Computer Systems Analyst I 1/	\$ 20.81
03102	Computer Systems Analyst II 1/	\$ 22.25
03103	Computer Systems Analyst III 1/	\$ 25.29
03160	Peripheral Equipment Operator	\$ 10.79
Automotive Service Occupations:		
05005	Automobile Body Repairer, Fiberglass	\$ 15.06
05010	Automotive Glass Installer	\$ 12.95
05040	Automotive Worker	\$ 12.95
05070	Electrician, Automotive	\$ 13.69
05100	Mobile Equipment Servicer	\$ 11.33
05130	Motor Equipment Metal Mechanic	\$ 14.44
05160	Motor Equipment Metal Worker	\$ 12.95
05190	Motor Vehicle Mechanic	\$ 14.44
05220	Motor Vehicle Mechanic Helper	\$ 10.53
05250	Motor Vehicle Upholstery Worker	\$ 12.14
05280	Motor Vehicle Wrecker	\$ 12.95
05310	Painter, Automotive	\$ 13.69
05340	Radiator Repair Specialist	\$ 12.95
05370	Tire Repairer	\$ 11.33
05400	Transmission Repair Specialist	\$ 14.44
Food Preparation and Service Occupations:		
07010	Baker	\$ 9.56
07041	Cook I	\$ 8.41
07042	Cook II	\$ 9.56
07070	Dishwasher	\$ 6.30
07100	Food Service Worker (Cafeteria Worker)	\$ 6.36
07130	Meat Cutter	\$ 10.59
07250	Waiter/Waitress	\$ 6.61
Furniture Maintenance and Repair Occupations:		

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACA63-00-B-0010

09010 Electrostatic Spray Painter	\$ 13.69
09040 Furniture Handler	\$ 8.92
09070 Furniture Refinisher	\$ 13.69
09100 Furniture Refinisher Helper	\$ 10.53
09110 Furniture Repairer, Minor	\$ 12.14
09130 Upholsterer	\$ 13.69

General Service and Support Occupations:

11030 Cleaner, Vehicles	\$ 6.29
11060 Elevator Operator	\$ 6.91
11090 Gardener	\$ 9.13
11121 Housekeeping Aide I	\$ 6.76
11122 Housekeeping Aide II	\$ 7.59
11150 Janitor	\$ 6.93
11210 Laborer, Grounds Maintenance	\$ 7.18
11240 Maid or Houseman	\$ 6.02
11270 Pest Controller	\$ 10.37
11300 Refuse Collector	\$ 6.91
11330 Tractor Operator	\$ 8.47
11360 Window Cleaner	\$ 7.60

Health Occupations:

12020 Dental Assistant	\$ 10.09
12040 Emergency Medical Technician/Paramedic Ambulance Driver	\$ 10.73
12071 Licensed Practical Nurse I	\$ 8.64
12072 Licensed Practical Nurse II	\$ 9.71
12073 Licensed Practical Nurse III	\$ 10.86
12100 Medical Assistant	\$ 9.02
12130 Medical Laboratory Technician	\$ 9.38
12160 Medical Record Clerk	\$ 10.37
12190 Medical Record Technician	\$ 12.49
12221 Nursing Assistant I	\$ 6.55
12222 Nursing Assistant II	\$ 7.36
12223 Nursing Assistant III	\$ 8.03
12224 Nursing Assistant IV	\$ 9.02
12250 Pharmacy Technician	\$ 11.24
12280 Phlebotomist	\$ 9.02
12311 Registered Nurse I	\$ 14.02
12312 Registered Nurse II	\$ 17.15
12313 Registered Nurse II, Specialist	\$ 17.15
12314 Registered Nurse III	\$ 20.75
12315 Registered Nurse III, Anesthetist	\$ 20.75
12316 Registered Nurse IV	\$ 24.87

Information and Arts Occupations:

13002 Audiovisual Librarian	\$ 14.53
13011 Exhibits Specialist I	\$ 13.83
13012 Exhibits Specialist II	\$ 17.46
13013 Exhibits Specialist III	\$ 20.09
13041 Illustrator I	\$ 13.44
13042 Illustrator II	\$ 16.97
13043 Illustrator III	\$ 19.52
13047 Librarian	\$ 16.29
13050 Library Technician	\$ 11.67
13071 Photographer I	\$ 11.05
13072 Photographer II	\$ 13.44
13073 Photographer III	\$ 16.97

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13074	Photographer IV	\$ 19.52
13075	Photographer V	\$ 23.70
Laundry, Drycleaning, Pressing and Related Occups:		
15010	Assembler	\$ 5.89
15030	Counter Attendant	\$ 5.89
15040	Dry Cleaner	\$ 7.55
15070	Finisher, Flatwork, Machine	\$ 5.89
15090	Presser, Hand	\$ 5.89
15100	Presser, Machine, Drycleaning	\$ 5.89
15130	Presser, Machine, Shirts	\$ 5.89
15160	Presser, Machine, Wearing Apparel, Laundry	\$ 5.89
15190	Sewing Machine Operator	\$ 8.11
15220	Tailor	\$ 8.68
15250	Washer, Machine	\$ 6.38
Machine Tool Operation and Repair Occupations:		
19010	Machine-Tool Operator (Toolroom)	\$ 13.69
19040	Tool and Die Maker	\$ 15.65
Materials Handling and Packing Occupations:		
21010	Fuel Distribution System Operator	\$ 13.20
21020	Material Coordinator	\$ 11.72
21030	Material Expediter	\$ 11.72
21040	Material Handling Laborer	\$ 8.17
21050	Order Filler	\$ 9.19
21071	Forklift Operator	\$ 9.80
21080	Production Line Worker (Food Processing)	\$ 10.17
21100	Shipping/Receiving Clerk	\$ 10.36
21130	Shipping Packer	\$ 10.36
21140	Store Worker I	\$ 7.47
21150	Stock Clerk (Shelf Stocker; Store Worker II)	\$ 9.80
21210	Tools and Parts Attendant	\$ 11.16
21400	Warehouse Specialist	\$ 10.22
Mechanics and Maintenance and Repair Occupations:		
23010	Aircraft Mechanic	\$ 16.58
23040	Aircraft Mechanic Helper	\$ 12.09
23050	Aircraft Quality Control Inspector	\$ 17.39
23060	Aircraft Servicer	\$ 13.94
23070	Aircraft Worker	\$ 14.87
23100	Appliance Mechanic	\$ 13.69
23120	Bicycle Repairer	\$ 11.33
23125	Cable Splicer	\$ 14.44
23130	Carpenter, Maintenance	\$ 13.69
23140	Carpet Layer	\$ 12.95
23160	Electrician, Maintenance	\$ 15.63
23181	Electronics Technician, Maintenance I	\$ 14.76
23182	Electronics Technician, Maintenance II	\$ 16.40
23183	Electronics Technician, Maintenance III	\$ 18.65
23260	Fabric Worker	\$ 12.14
23290	Fire Alarm System Mechanic	\$ 14.44
23310	Fire Extinguisher Repairer	\$ 11.33
23340	Fuel Distribution System Mechanic	\$ 14.44
23370	General Maintenance Worker	\$ 12.95
23400	Heating, Refrigeration and Air-Conditioning Mechanic	\$ 14.44
23430	Heavy Equipment Mechanic	\$ 14.44
23440	Heavy Equipment Operator	\$ 14.44
23460	Instrument Mechanic	\$ 16.61
23470	Laborer	\$ 8.17

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23500 Locksmith	\$ 13.69
23530 Machinery Maintenance Mechanic	\$ 14.52
23550 Machinist, Maintenance	\$ 14.44
23580 Maintenance Trades Helper	\$ 10.53
23640 Millwright	\$ 14.44
23700 Office Appliance Repairer	\$ 13.69
23740 Painter, Aircraft	\$ 13.69
23760 Painter, Maintenance	\$ 13.69
23790 Pipefitter, Maintenance	\$ 14.98
23800 Plumber, Maintenance	\$ 13.74
23820 Pneudraulic Systems Mechanic	\$ 14.44
23850 Rigger	\$ 14.44
23870 Scale Mechanic	\$ 12.95
23890 Sheet-Metal Worker, Maintenance	\$ 14.44
23910 Small Engine Mechanic	\$ 12.95
23930 Telecommunications Mechanic I	\$ 14.44
23931 Telecommunications Mechanic II	\$ 17.42
23950 Telephone Lineman	\$ 14.44
23960 Welder, Combination, Maintenance	\$ 14.44
23965 Well Driller	\$ 14.44
23970 Woodcraft Worker	\$ 14.44
23980 Woodworker	\$ 11.48
Personal Needs Occupations:	
24570 Child Care Attendant	\$ 8.34
24580 Child Care Center Clerk	\$ 10.40
24600 Chore Aide	\$ 6.15
24630 Homemaker	\$ 11.57
Plant and System Operation Occupations:	
25010 Boiler Tender	\$ 14.44
25040 Sewage Plant Operator	\$ 13.69
25070 Stationary Engineer	\$ 16.61
25190 Ventilation Equipment Tender	\$ 10.53
25210 Water Treatment Plant Operator	\$ 13.69
Protective Service Occupations:	
27004 Alarm Monitor	\$ 9.32
27006 Corrections Officer	\$ 11.06
27010 Court Security Officer	\$ 11.90
27040 Detention Officer	\$ 11.06
27070 Firefighter	\$ 13.17
27101 Guard I	\$ 8.16
27102 Guard II	\$ 10.72
27130 Police Officer	\$ 14.25
Stevedoring/Longshoremen Occupational Services:	
28010 Blocker and Bracer	\$ 14.39
28020 Hatch Tender	\$ 12.51
28030 Line Handler	\$ 12.51
28040 Stevedore I	\$ 11.62
28050 Stevedore II	\$ 13.22
Technical Occupations:	
29010 Air Traffic Control Specialist, Center 2/	\$ 24.89
29011 Air Traffic Control Specialist, Station 2/	\$ 17.17
29012 Air Traffic Control Specialist, Terminal 2/	\$ 18.90
29023 Archeological Technician I	\$ 12.25
29024 Archeological Technician II	\$ 13.38
29025 Archeological Technician III	\$ 16.97

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29030	Cartographic Technician	\$ 17.85
29035	Computer Based Training (CBT) Specialist/Instructor	\$ 17.41
29040	Civil Engineering Technician	\$ 17.85
29061	Drafter I	\$ 11.57
29062	Drafter II	\$ 12.71
29063	Drafter III	\$ 17.36
29064	Drafter IV	\$ 20.53
29081	Engineering Technician I	\$ 11.45
29082	Engineering Technician II	\$ 13.81
29083	Engineering Technician III	\$ 15.46
29084	Engineering Technician IV	\$ 22.06
29085	Engineering Technician V	\$ 25.81
29086	Engineering Technician VI	\$ 27.15
29090	Environmental Technician	\$ 19.27
29100	Flight Simulator/Instructor (Pilot)	\$ 22.25
29150	Graphic Artist	\$ 15.14
29160	Instructor	\$ 16.22
29210	Laboratory Technician	\$ 14.80
29240	Mathematical Technician	\$ 19.27
29361	Paralegal/Legal Assistant I	\$ 12.41
29362	Paralegal/Legal Assistant II	\$ 13.95
29363	Paralegal/Legal Assistant III	\$ 17.06
29364	Paralegal/Legal Assistant IV	\$ 20.65
29390	Photooptics Technician	\$ 17.56
29480	Technical Writer	\$ 21.94
29491	Unexploded Ordnance Technician I	\$ 15.82
29492	Unexploded Ordnance Technician II	\$ 19.15
29493	Unexploded Ordnance Technician III	\$ 22.95
29494	Unexploded Safety Escort	\$ 15.82
29495	Unexploded Sweep Personnel	\$ 15.82
29620	Weather Observer, Senior 3/	\$ 15.20
29621	Weather Observer, Combined Upper Air & Surface Programs 3/	\$ 13.68
29622	Weather Observer, Upper Air 3/	\$ 13.68
Transportation/Mobile Equipment Operation Occupys:		
31030	Bus Driver	\$ 11.39
31260	Parking and Lot Attendant	\$ 6.84
31290	Shuttle Bus Driver	\$ 8.58
31300	Taxi Driver	\$ 7.97
31361	Truckdriver, Light Truck	\$ 8.58
31362	Truckdriver, Medium Truck	\$ 11.98
31363	Truckdriver, Heavy Truck	\$ 12.84
31364	Truckdriver, Tractor-Trailer	\$ 12.84
Miscellaneous Occupations:		
99020	Animal Caretaker	\$ 7.21
99030	Cashier	\$ 7.11
99041	Carnival Equipment Operator	\$ 8.97
99042	Carnival Equipment Repairer	\$ 9.67
99043	Carnival Worker	\$ 6.01
99050	Desk Clerk	\$ 8.34
99095	Embalmer	\$ 16.84
99300	Lifeguard	\$ 8.32
99310	Mortician	\$ 17.57
99350	Park Attendant (Aide)	\$ 10.44
99400	Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	\$ 8.59
99500	Recreation Specialist	\$ 11.57
99510	Recycling Worker	\$ 8.98

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99610 Sales Clerk	\$ 7.47
99620 School Crossing Guard (Crosswalk Attendant)	\$ 6.91
99630 Sports Official	\$ 8.32
99658 Survey Party Chief (Chief of Party)	\$ 14.76
99659 Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	\$ 12.62
99660 Surveying Aide	\$ 9.21
99690 Swimming Pool Operator	\$ 9.56
99720 Vending Machine Attendant	\$ 8.98
99730 Vending Machine Repairer	\$ 10.99
99740 Vending Machine Repairer Helper	\$ 8.98

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\*\* Fringe Benefits Required For All Occupations Included In  
This Wage Determination \*\*

HEALTH & WELFARE: \$1.63 an hour or \$65.20 a week or \$282.53 a month.  
VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 10 years; 4 weeks after 20 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 4.173)

HOLIDAYS: Minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

1/

Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See 29 CFR 4.156)

2/

APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3/

WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employee (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

\*\* UNIFORM ALLOWANCE \*\*

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to

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reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$4.25 per week (or \$.85 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

\*\* NOTES APPLYING TO THIS WAGE DETERMINATION \*\*

Source of Occupational Titles and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Second Supplement, dated August 1995, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE  
{Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service

employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)}  
When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed occupation) and computes a proposed rate).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the

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authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL  
EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (APR 1984) (FAR 52.222-23D)  
(DEVIATION)**

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation  
for each trade

16.4%

Goals for female participation  
for each trade

6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs Office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

**KILLEEN-TEMPLE, TX SMSA**

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance Programs, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the--

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is:

the Texas Cities of Killeen and Temple, and **Bell and Coryell Counties**.

SECTION 01610

PROPRIETARY PRODUCTS

08/1999

Amendment No. 0002

PART 1 GENERAL (NOT USED)

PART 2 PRODUCTS

2.1 PROPRIETARY PRODUCTS

The following products and materials are specified by manufacturers' trade names, model numbers, sizes, and/or color in the the identified sections or drawings and shall be installed in this project. The minimum standard requirements of Contract Clause 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984) which specify trade name references as establishing a standard of quality do not apply to these products. These products are required to be proprietary:

02890 TRAFFIC SIGNAL LIGHT SYSTEM

1. Traffic Signal Controller

04200 MASONRY

1. Face Brick

04735 CAST STONE

1. Cast Stone

05500 MISCELLANEOUS METAL

1. Expansion Joints
- [am#2] 2. Drain Boots
- [am#2] 3. Pedimats

[am#2] \_\_\_\_\_  
[am#2] \_\_\_\_\_

[am#2]07240 EXTERIOR FINISH SYSTEM

- [am#2] 1. Exterior finish at soffits and fascias

07416 STRUCTURAL STANDING SEAM METAL ROOF (SSSMR) SYSTEM

1. Stand Seam Metal Roof

[am#2]07532 ELASTOMERIC SHEET ROOFING SYSTEM (CSPE)

- [am#2] 1. Roofing Membrane

[am#2]07600 SHEET METALWORK, GENERAL

- [am#2] 1. Louvers

[am#2]07810 UNIT SKYLIGHTS

- [am#2] 1. Skylight

- 08120 ALUMINUM DOORS AND FRAMES  
[am#2] 1. Aluminum doors and/or sidelights/transoms frames.  
[am#2] 2. Aluminum window walls.
- 08330 OVERHEAD ROLLING DOORS  
1. Roll-up Doors
- 08520 ALUMINUM WINDOWS  
1. Windows
- 08700 BUILDERS' HARDWARE  
1. Hardware
- [am#2]08810 GLASS AND GLAZING  
[am#2] 1. Glass.  
[am#2] 2. Spandrel glass.
- 09310 CERAMIC TILE  
1. Quarry tile  
[am#2]2. Ceramic tile
- 09510 ACOUSTICAL CEILINGS  
1. Acoustical tile ceiling
- 09680 CARPET  
1. Carpet
- 09720 WALLCOVERINGS  
1. Wall Coverings
- 09836 MULTI-COLOR TEXTURED INTERIOR COATING  
1. Multi-Color Textured Interior Coating
- 10101 MISCELLANEOUS ITEMS  
[am#2] 1. Public telephone enclosures  
2. Presentation cabinets  
3. TV wall mounts  
[am#2] 4. Fire extinguishers  
[am#2] 5. Fire extinguisher cabinet and brackets
- 10160 TOILET PARTITIONS AND VANITY UNITS  
1. Toilet partitions and vanities
- [am#2]10260 WALL AND CORNER PROTECTION  
[am#2] 1. Corner guards
- 10270 RAISED FLOOR SYSTEM  
1. Raised flooring
- [am#2]10800 TOILET ACCESSORIES  
[am#2] 1. Toilet accessories
- 12490 WINDOW TREATMENT  
1. Window blinds
- 13814 BUILDING PREPARATION FOR ENERGY MONITORING AND CONTROL SYSTEMS (EMCS)  
1. AMRS Meter Interface Unit

PART 3 EXECUTION (NOT USED)

-- End of Section --

SECTION 04735

CAST STONE

08/1999

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN CONCRETE INSTITUTE (ACI)

ACI 318M/318RM (1989; Rev 1992) Building Code Requirements for Reinforced Concrete

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 33 (1992a) Specification for Concrete Aggregates.

ASTM C 150 (1994) Specification for Portland Cement.

ASTM A 270 (1990) Seamless and Welded Austenitic Stainless Steel Sanitary Tubing

ASTM C 494 (1992) Specification for Concrete Admixtures.

ASTM A 615 (1993) Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement.

ASTM A 642(1990) Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Drawing Quality, Special Killed

ASTM C 979(1982; R 1993) Coloring Pigments for Integrally Pigmented Concrete.

ASTM C 1194 Test Method for Compressive Strength of Architectural Cast Stone.

ASTM C 1195 Test Method for Absorption of Architectural Cast Stone.

ASTM D 2244(1993) Test Method for Calculation of Color Differences From Instrumentally Measured Color Coordinates.

CAST STONE INSTITUTE (CS)

CS-01 (Current Edition) Cast Stone Institute Technical Manual.

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

### SD-04 Drawings

Cast Stone; FIO.

Shop Drawings: Submit for approval the following:

a. Copies of shop drawings showing details of the stone to be provided including: profiles, cross-sections, reinforcement, exposed faces, arrangement of joints, anchoring methods, anchors, annotation of stone types and their location.

b. Unless otherwise shown on contract drawings:

(1)- Provide suitable wash on all exterior sills, coping, projecting courses and pieces with exposed top surfaces.

(2) Provide drips as needed.

### SD-13 Samples

Cast Stone; GA.

Submit for approval the following:

a. Samples of the Cast Stone specified which will be representative of the general range of color and finish to be furnished.

b. Test results of Cast Stone previously made by the manufacturer.

## 1.3 QUALITY ASSURANCE

### 1.3.1 Qualification of manufacturer

a. Shall be a current producer member of the Cast Stone Institute.

b. The Manufacturer shall have a minimum of five years of continuous operation, having experience, adequate facilities and capacity to furnish the quality, sizes and quantity of cast stone required without delaying the progress of the work, and whose products have been previously used and exposed to the weather with satisfactory results.

### 1.3.2 Cast Stone

All cast stone used in this work shall be manufactured by the same manufacturer.

### 1.3.3 Testing

Test compressive strength and absorption of three specimens per 500 cubic feet at random from plant production in accordance with referenced standards.

#### 1.4 MOCK-UP

Provide full size unit(s) for use in construction of sample wall. The mock-up becomes the standard of workmanship for the project.

#### PART 2 PRODUCTS

[AM0002]Product shall match Phase I of Force XXI Soldier Development Center

#### 2.1 MATERIALS

##### 2.1.1 Architectural Cast Stone

Physical properties: Provide the following:

- a. Compressive Strength, ASTM C 1194: 6500 psi min. for products at 28 days. or;
- b. Absorption, ASTM C 1195 or ASTM C642: 6% max. for products at 28 days.
- c. Divide results of field cut specimens by .8 to determine minimum compressive strength requirements.

##### 2.1.2 Raw materials

###### 2.1.2.1 Portland cement

Type I or m, white and/or grey, ASTM C 150.

###### 2.1.2.2 Coarse aggregates

Granite, quartz or limestone, ASTM C 33, except for gradation.

###### 2.1.2.3 Fine aggregates

Manufactured or natural sands, ASTM C 33, except for gradation.

###### 2.1.2.4 Colors

Inorganic iron oxide pigments, ASTM C 979.

###### 2.1.2.5 Admixtures

ASTM C 494.

###### 2.1.2.6 Water

Potable.

#### 2.2 COLOR AND FINISH

##### 2.2.1 Color

Color shall be as indicated in SECTION 09000: BUILDING COLOR & FINISH SCHEDULE.

##### 2.2.2 Exposed Surfaces

Exposed surfaces, unless otherwise specified, shall exhibit a fine "rained texture similar to that of natural stone. No bugholes or air voids will be permitted.

### 2.2.3 Variation

Must match color and finish of approved sample subjected to similar aging and weathering conditions when viewed in direct daylight at a 10 foot distance.

ASTM. color variation allowed - 2%, hue, 6% lightness, chrome and hue combined.

## 2.3 CURING AND FINISHING

a. Cast stone shall be cured with a direct fired steam generator at a minimum temperature of 105 degrees F for a minimum of 6 hours within 12 hours of product fabrication. Curing shall be performed in the presence of CO and CO<sub>2</sub> to promote carbonation at the surface of the product for efflorescence control.

b. Remove cement film from exposed surfaces prior to packaging for shipment.

## 2.4 REINFORCING

New billet steel reinforcing bars - ASTM A 615:

a. Reinforce units when necessary for handling and structural stresses.

b. Reinforcement shall be galvanized or epoxy coated when covered with less than 1-1/2 inches of material.

c. Area of reinforcement in panels shall be not less than 1/4 of one percent of the cross section area and otherwise as required by ACI 318 Building Code Requirements for Reinforced Concrete.

## 2.5 RELATED MATERIALS

### 2.5.1 Anchors

Non-corrosive; galvanized, brass or stainless steel type 304.

### 2.5.2 Mortar

Type N, ASTM C 270.

## PART 3 EXECUTION

### 3.1 [Enter Appropriate Subpart Title Here] 3.1.1 TOLERANCES

a. Comply with Cast Stone Institute Technical Manual (current edition).

b. Set stones 1/8-inch or less, within plane of adjacent unit.

c. Joints, +1/16 inch, -1/8 inch.

### 3.2 JOINTING

### 3.2.1 Joint size

- a. At stonel brick joints - 3/8 inch.
- b. At stone/stone joints in vertical position 1/4-inch (3/8-inch optional).
- c. Stone/stone joints exposed on top side 3/8-inch.

### 3.2.2 Joint material

- a. Use a full bed of mortar at all bed joints.
- b. Flush vertical joints full with mortar.
- c. Leave all joints with exposed tops or under relieving angles open for sealant.

### 3.2.3 Location of Joints

- a. As shown on approved shop drawings.
- b. Unless otherwise shown: at control and expansion joints per plans.

## 3.3 SETTING

- a. Drench stones with clear, running water just prior to setting.
- b. Fill all dowel holes and anchor slots completely with mortar or non-shrink grout.
- c. Set all stones in a full bed of mortar unless otherwise detailed. Leave head joints in coping and similar stones open for sealant.
- d. Rake mortar joints 3/4" for pointing. Sponge the face of each stone to remove excess mortar.
- e. Tuck point stone joints to a slight concave profile.
- f. Sealant joints - Prime the ends of stones, insert properly sized foam backup rod and gun-in sealant.
- g. Protect stone while on ground (and after setting) from splashing, mortar and damage from other trades.

## 3.4 CLEANING AND REPAIR

- a. Clean stone by wetting with clear running water and applying a solution of "Sure Clean #600" by ProSoCo Products, Inc. or equal. Follow manufacturer's instructions.
- b. Repair obvious chips with touchup material furnished by the manufacturer.

-- End of Section --

SECTION 05500

MISCELLANEOUS METAL

07/97

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ALUMINUM ASSOCIATION (AA)

AA DAF-45 (1980; R 1993) Designation System for Aluminum Finishes

AA SAA-46 (1978) Standards for Anodized Architectural Aluminum

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A14.3 (1992) Ladders - Fixed - Safety Requirements

ANSI MH28.1 (1982) Design, Testing, Utilization, and Application of Industrial Grade Steel Shelving

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 36 (1996) Carbon Structural Steel

ASTM A 53 (1996) Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

ASTM A 123 (1989a) Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM A 283 (1993a) Low and Intermediate Tensile Strength Carbon Steel Plates

ASTM A 467 (1993) Machine and Coil Chain

ASTM A 475 (1995) Zinc-Coated Steel Wire Strand

ASTM A 500 (1993) Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes

ASTM A 653 (1996) Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

ASTM A 924 (1996a) Steel Sheet, Metallic-Coated by the Hot-Dip Process

ASTM B 26 (1996a) Aluminum-Alloy Sand Castings

ASTM B 221 (1996) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes

ASTM B 429 (1995) Aluminum-Alloy Extruded Structural Pipe and Tube

ASTM D 2047 (1993) Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1 (1994) Structural Welding Code - Steel

COMMERCIAL ITEM DESCRIPTIONS (CID)

CID A-A-344 (Rev B) Lacquer, Clear Gloss, Exterior, Interior

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM MBG 531 (1993) Metal Bar Grating Manual

NAAMM MBG 532 (1988) Heavy Duty Metal Bar Grating Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 211 (1992) Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Miscellaneous Metal Items; FIO.

Detail drawings indicating material thickness, type, grade, and class; dimensions; and construction details. Drawings shall include catalog cuts, erection details, manufacturer's descriptive data and installation instructions, and templates. Detail drawings for the following items:

(a) Access Doors and Frames;(b)Exhaust Vents;(c)Drain Spout Boots;(d)Expansion-Joint Covers;(e)Handrails;(f)Ladders;(g)Miscellaneous;(h) Roof Hatches;(i)Safety Nosing;(j) Steel Stairs;(k)Roof-Up Floor Mats(l)Vehicle Screen;(m)Monumental Stairs, G102-G202;(n)Studio Light Grid.

SD-14 Samples

Miscellaneous Metal Items; GA.

Samples of the following items:

(a) Access Doors and Frames; (b) Exhaust Vents; (c) Drain Spout Boots; (d) Expansion-Joint Covers; (e) Handrails; (f) Ladders; (g) Miscellaneous; (h) Roof Hatches; (i) Safety Nosing; (j) Steel Stairs; (k) Roll-Up Floor Mats; (l) Vehicle Screen; (m) Monumental Stairs, G102-G202; (n) Studio Light Grid.

Samples shall be full size, taken from manufacturer's stock, and shall be complete as required for installation in the structure. Samples may be installed in the work, provided each sample is clearly identified and its location recorded.

### 1.3 GENERAL REQUIREMENTS

The Contractor shall verify all measurements and shall take all field measurements necessary before fabrication. Welding to or on structural steel shall be in accordance with AWS D1.1. Items specified to be galvanized, when practicable and not indicated otherwise, shall be hot-dip galvanized after fabrication. Galvanizing shall be in accordance with ASTM A 123, ASTM A 653, or ASTM A 924, as applicable. Exposed fastenings shall be compatible materials, shall generally match in color and finish, and shall harmonize with the material to which fastenings are applied. Materials and parts necessary to complete each item, even though such work is not definitely shown or specified, shall be included. Poor matching of holes for fasteners shall be cause for rejection. Fastenings shall be concealed where practicable. Thickness of metal and details of assembly and supports shall provide strength and stiffness. Joints exposed to the weather shall be formed to exclude water.

### 1.4 DISSIMILAR MATERIALS

Where dissimilar metals are in contact, or where aluminum is in contact with concrete, mortar, masonry, wet or pressure-treated wood, or absorptive materials subject to wetting, the surfaces shall be protected with a coat of bituminous paint or asphalt varnish.

### 1.5 WORKMANSHIP

Miscellaneous metalwork shall be well formed to shape and size, with sharp lines and angles and true curves. Drilling and punching shall produce clean true lines and surfaces. Welding shall be continuous along the entire area of contact except where tack welding is permitted. Exposed connections of work in place shall not be tack welded. Exposed welds shall be ground smooth. Exposed surfaces of work in place shall have a smooth finish, and unless otherwise approved, exposed riveting shall be flush. Where tight fits are required, joints shall be milled. Corner joints shall be coped or mitered, well formed, and in true alignment. Work shall be accurately set to established lines and elevations and securely fastened in place. Installation shall be in accordance with manufacturer's installation instructions and approved drawings, cuts, and details.

### 1.6 ANCHORAGE

Anchorage shall be provided where necessary for fastening miscellaneous metal items securely in place. Anchorage not otherwise specified or indicated shall include slotted inserts made to engage with the anchors, expansion shields, and power-driven fasteners when approved for concrete;

toggle bolts and through bolts for masonry; machine and carriage bolts for steel; and lag bolts and screws for wood.

#### 1.7 ALUMINUM FINISHES

Unless otherwise specified, aluminum items shall have anodized finish. The thickness of the coating shall be not less than that specified for protective and decorative type finishes for items used in interior locations or architectural Class I type finish for items used in exterior locations in AA DAF-45. Items to be anodized shall receive a polished satin finish. Aluminum surfaces to be in contact with plaster or concrete during construction shall be protected with a field coat conforming to CID A-A-344.

#### 1.8 SHOP PAINTING

Surfaces of ferrous metal except galvanized surfaces, shall be cleaned and shop coated with the manufacturer's standard protective coating unless otherwise specified. Surfaces of items to be embedded in concrete shall not be painted. Items to be finish painted shall be prepared according to manufacturer's recommendations or as specified.

### PART 2 PRODUCTS

Products shall match Phase I if Force XXI Soldier Development Center.

#### 2.1 ACCESS DOORS AND PANELS

Doors and panels shall be flush type unless otherwise indicated. Frames for access doors shall be fabricated of not lighter than steel with welded joints and finished with anchorage for securing into construction. Access doors shall be a minimum of and of not lighter than steel, with stiffened edges, complete with attachments. Access doors shall be hinged to frame and provided with a flush face, screw driver operated latch. Exposed metal surfaces shall have a shop applied prime coat.

#### 2.2 PIPE GUARDS

Pipe guards shall be heavy duty steel pipe conforming to ASTM A 53, Type E or S, weight STD, prime finish.

#### 2.3 Drain BOOTS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

Drain boots shall be cast brass with threaded inlet, insect screen and flange to secure to wall. Install per manufacturers written instructions.

#### 2.4 EXPANSION JOINT COVERS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

Expansion joint covers shall be constructed of extruded aluminum with anodized satin finish for walls and ceilings and with standard mill finish for floor covers and exterior covers. Plates, backup angles, expansion filler strip and anchors shall be designed as indicated. Expansion joint system shall provide a one hour fire rating and 2 movement.

#### 2.5 HANDRAILS

All handrails and anchorage shall be designed for all lateral load of 50 pounds per foot and a concentrated load of applied at the top of the

rail, whichever is more severe.

#### 2.5.1 Steel Handrails, Including Carbon Steel Inserts

Steel handrails, including inserts in concrete, shall be steel pipe conforming to ASTM A 53 structural tubing conforming to ASTM A 500, Grade A or B of equivalent strength. Steel railings shall be as indicated on the drawings. Railings shall be hot-dip galvanized and shop painted. Pipe collars shall be hot-dip galvanized steel.

- a. Joint posts, rail, and corners shall be fabricated by one of the following methods:

- (1) Flush type rail fittings of commercial standard, welded and ground smooth with railing splice locks secured with hexagonal recessed-head setscrews.

- (2) Mitered and welded joints by fitting post to top rail and intermediate rail to post, mitering corners, groove welding joints, and grinding smooth. Railing splices shall be butted and reinforced by a tight fitting interior sleeve not less than long.

- (3) Railings may be bent at corners in lieu of jointing, provided bends are made in suitable jigs and the pipe is not crushed.

#### 2.6 LADDERS

Ladders shall be galvanized steel or aluminum, fixed rail type in accordance with ANSI A14.3.

#### 2.7 MISCELLANEOUS

Miscellaneous plates and shapes for items that do not form a part of the structural steel framework, such as lintels, sill angles, miscellaneous mountings, and frames, shall be provided to complete the work.

#### 2.8 ROLL-UP FLOOR MATS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

Roll-up mats shall be of aluminum construction with carpet surface. Roll-up mats shall be for use in recessed area. Construction details of recessed areas shall be shown on the drawings.

#### 2.9 ROOF SCUTTLES

Roof scuttles shall be of galvanized steel not less than ] with beaded flange welded and ground at corners. Scuttle shall be sized to provide minimum clear opening of Cover and curb shall be insulated with thick rigid insulation covered and protected by galvanized steel liner not less than The curb shall be equipped with an integral metal cap flashing of the same gauge and metal as the curb, full welded and ground at corners for weathertightness. Scuttle shall be completely assembled with heavy hinges, compression spring operators enclosed in telescopic tubes, positive snap latch with turn handles on inside and outside and neoprene draft seal. Fasteners shall be provided for padlocking on the inside. The cover shall be equipped with an automatic hold-open arm complete with handle to permit one hand release.

## 2.10 SAFETY NOSING

Safety nosings shall be of cast aluminum with [cross-hatched] [plain], abrasive surface. Nosing shall be wide and terminating at not more than from the ends of treads, except nosing for metal pan cement-filled treads shall extend the full length of the tread. Safety nosings shall be provided with anchors not less than long. Integrally cast mushroom anchors are not acceptable.

## 2.11 STEEL STAIRS

Steel stairs shall be complete with structural or formed channel stringers, metal pan cement-filled treads, landings, columns, handrails, and necessary bolts and other fastenings as indicated. Structural steel shall conform to ASTM A 36 A 572 or A 500. Stairs and accessories shall be galvanized. Risers on stairs with metal pan treads shall be deformed to form a sanitary cove to retain the tread concrete. Concrete in stair treads shall be broom finish. Interior stairs shall have quarry tile in concrete: See Section: 09000: BUILDING COLOR AND FINISH SCHEDULE.

## 2.12 MONUMENTAL STAIRS

Monumental stair, G102-G202 indicated on the drawings shall be manufactured by "Zephyr Architectural Metals, Inc." (918) 425-2300 or approved equal. Stair shall have a supported landing as indicated and be complete with structural or formed channel stringers, metal pan cement-filled treads and landing to receive thin-set quarry tile, closer risers, handrails, and necessary bolts and other fastening as indicated or required. Stair handrails and guardrails as shown around stair opening to have wood cap 1/2" tempered glass (laminated at curved section) and stainless steel base at rail around stair opening. Handrails and guardrails shall be designed to withstand the loading specified earlier in this specification. The stair and handrail system shall be built by the same fabricator.

## 2.13 VEHICLE SCREEN

Vehicle Screen shall be galvanized, all welded construction as shown on the drawings. All welds shall be ground smooth.

## 2.14 STUDIO LIGHT GRID

Studio light grid shall be fabricated from 1 1/2" standard black pipe in as long a lengths as possible. The location and construction shall be as indicated on the drawings. Pipe shall be primed and ready for painting.

# PART 3 EXECUTION

## 3.1 GENERAL INSTALLATION REQUIREMENTS

All items shall be installed at the locations shown and according to the manufacturer's recommendations. Items listed below require additional procedures as specified.

## 3.2 ACCESS DOORS AND PANELS

Access doors and panels shall be installed directly below each valve, flow indicator, damper, or air splitter that is located above the ceiling, other

than an acoustical ceiling, and that would otherwise not be accessible.

### 3.3 INSTALLATION OF PIPE GUARDS

Pipe guards shall be set vertically in concrete piers. Piers shall be constructed of, and the hollow cores of the pipe filled with, concrete specified in SECTION 03300 CAST-IN-PLACE STRUCTURAL CONCRETE, having a compressive strength of

### 3.4 INSTALLATION OF DRAIN SPOUT BOOTS

Drainspout boots shall be secured to building through integral lips with appropriate fasteners.

### 3.5 ATTACHMENT OF HANDRAILS

Brackets shall be installed where indicated on the drawings and not more than 10" from end of handrail.

#### 3.5.1 Installation of Steel Handrails

Installation shall be in pipe sleeves embedded in concrete and filled with molten lead or sulphur or welded to structural steel with anchorage covered with standard pipe collar pinned to post. Rail ends shall be closed and turned towards the wall to within 1/2" of wall face. Secured by steel pipe flanges.

### 3.6 RECESSED FLOOR MATS

Contractor shall verify field measurements prior to releasing materials for fabrication by the manufacturer. A mat frame shall be used to ensure recess accuracy in size, shape and depth. It is intended to have a full tile around the frame when installed in a quarry tile floor. Drain pit shall be formed by blocking out concrete when frames are installed. Pit shall be dampproofed after concrete has set. Frames shall be assembled onsite and installed so that upper edge will be level with finished floor surface. A cement base shall be screeded inside the mat recess frame area using the edge provided by the frame as a guide. The frame shall be anchored into the cement with anchor pins a minimum of on centers.

### 3.7 INSTALLATION OF SAFETY NOSINGS

Nosing shall be completely embedded in concrete before the initial set of the concrete occurs and shall finish flush with the top of the concrete surface, or quarry tile surface.

### 3.8 INSTALLATION OF PIPE GUARDS

Pipe guards shall be filled with concrete and installed as indicated on the drawings.

### 3.9 INSTALLATION OF VEHICLE SCREEN

Vehicle screen shall be installed with tube steel posts as detailed over smaller tube embedded to within 6-inches of the bottom of the foundation, the plumb welded in a plumb position. Top corners to be bolted to masonry wall with use of clip angles.

### 3.10 MONUMENTAL STAIRS

Monumental stairs and handrail systems shall be pre-shop assembled with handrails and cladding prior to shipment. The monument stair and handrail fabricator shall install the entire system with their own erection crews.

3.11 STUDIO LIGHT GRID

Studio light grid shall be installed as indicated in a true plane at the required height.

-- End of Section --

SECTION 06101

BATT INSULATION TO THE CEILING

11/1999

AMENDMENT NO. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

SPONSOR ORGANIZATION (ACRONYM)

ACRONYM REF-ID (issue/revision date) Publication Title

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 518 (1991) Steady-State Heat Flux Measurements and Thermal Transmission Properties By Means of the Heat Flow Meter Apparatus

ASTM C 665 (1994) Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing

ASTM E 84 (1996a) Surface Burning Characteristics of Building Materials

UNDERWRITERS LABORATORIES (UL)

UL 723 (1993; Supple) Fire Resistance Directory

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-13 Certificates

Insulation; FIO.

Certificate attesting that the insulation furnished for the project contains recovered material, and showing an estimated percent of such recovered material.

1.3 DELIVERY AND STORAGE

Materials shall be delivered to the site in undamaged condition, stored off ground in fully covered, well ventilated areas, and protected from extreme changes in temperature and humidity.

## PART 2 PRODUCTS

### 2.1 INSULATION HANGER ACCESSORIES

Markings shall identify both the strength grade and the manufacturer. Accessories shall conform to the following:

#### 2.1.1 IMPALING WELD PINS

Impaling weld pins, type and size best suited for the intended use complete with square metal self locking washers.

### 2.2 INSULATION

Thermal resistance of insulation shall be not less than the R-value of 19. R-values shall be determined at 24 degrees C in accordance with ASTM C 518.

Insulation shall contain the highest practicable percentage of recovered material which has been recovered or diverted from solid waste, but not including material reused in a manufacturing process. Where two materials have the same price and performance, the one containing the higher recovered material content shall be provided. Insulation shall be the standard product of a manufacturer and factory marked or identified with manufacturer's name or trademark and R-value. Identification shall be on individual pieces or individual packages. Materials containing more than one percent asbestos will not be allowed.

#### 2.2.1 Batt or Blanket

##### 2.2.1.1 Glass Fiber Batts and Rolls

Glass fiber batts and rolls shall conform to ASTM C 665, Type III foil faced insulation Class A and shall have a UL designation of FHC 25/50 indicating a maximum flame spread value of 25 and a maximum smoke developed value of 50 when tested for burning characteristics by UL 723 or ASTM E 84. Width of insulation shall be continuous between the bar joists.

No butt joints in insulation parallel with bar joists will be allowed.

### 2.3 Tie Wires

Galvanized steel wire not less than 1.44 mm in size.

## PART 3 EXECUTION

### 3.1 INSTALLATION OF IMPALING PINS

Impaling pins shall be spaced not more than 406 mm on centers, and not more than 76 mm from edges of the insulation joints. Impaling pins shall be welded to under side of the floor deck per manufacturer's recommendations.

### 3.2 INSTALLATION OF INSULATION

Insulation shall be installed after construction has advanced to a point that the installed insulation will not be damaged by remaining work. For thermal insulation the actual installed thickness shall provide the thermal resistance specified. Insulation shall be impaled on the impaling pins, square metal self-locking washers shall be installed and the pin trimmed and bent over. Tie wires shall be tied to the bar joists and run perpendicular to bar joists at 406 mm on center staggered between impaling

fasteners.

-- End of Section --

SECTION 06410

CUSTOM CASEWORK

12/95

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A208.1 (1989) Wood Particleboard

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 1036 (1991) Flat Glass

ASTM D 1037 (1991) Evaluating the Properties of Wood-Base Fiber and Particle Panel Materials

ARCHITECTURAL WOODWORK INSTITUTE (AWI)

AWI-02 (1988) Architectural Woodwork Quality Standards, Guide Specifications, and Quality Certification Program

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

BHMA A156.5 (1992) Auxiliary Locks and Associated Products

BHMA A156.9 (1988) Cabinet Hardware

BHMA A156.18 (1987) Materials and Finishes

HARDWOOD PLYWOOD MANUFACTURERS ASSOCIATION (HPMA)

HPMA HP-1 (1992) Interim Voluntary Standard for Hardwood and Decorative Plywood

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA LD 3 (1991) High-Pressure Decorative Laminates

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

#### SD-01 Data

Custom Casework; FIO.

Manufacturer's catalog data, including standard color charts.

#### SD-04 Drawings

Custom Casework; FIO.

Drawings shall show each type of casework, counters, cabinets, and related items, and shall clearly indicate the complete layout of the cabinets and accessories, and pertinent details of construction, fabrication and attachments.

#### SD-06 Instructions

Custom Casework; FIO.

Manufacturer's instructions shall include assembling, installation, finishing, and maintenance instructions.

#### SD-14 Samples

Custom Casework; GA.

Plastic Laminate; GA.

Samples shall be submitted with the drawings. In lieu of individual samples, complete minimum size casework may be furnished as samples. Mock-up units are not acceptable. Samples shall include the following items:

- a. Door and drawer fronts - one of each type, with hardware mounted.
- b. Countertop and backsplash - one section, wide, containing both.
- c. Plastic laminate color samples, .

### 1.3 DELIVERY, HANDLING, AND STORAGE

The Contractor shall protect materials from damage during delivery, when stored, and during construction. Damaged and defective materials shall be removed and replaced with new. Cabinet work shall be constructed, or delivered and brought into the building, only after the building has dried out, following the installation of wet materials, and when there is no danger of damage to materials due to excessive moisture. Mill-fabricated cabinets and casework shall be delivered to the project

## PART 2 PRODUCTS

### 2.1 GENERAL REQUIREMENTS

Casework, including cabinets and counters, shall be reveal overlay design and shall be custom built, either at a mill or in-place in the building. Casework shall be custom grade, and unless otherwise specified, shall be

built to the quality standards specified in AWI-02 for cabinets and casework. Design shall be as indicated on the drawings.

#### 2.1.1 Plywood

Hardwood plywood shall meet or exceed the requirements of HPMA HP-1. Plywood shall be of specified thickness with face-veneer on both sides. Veneers shall meet or exceed the requirements of HPMA HP-1, Grade A, and be Type II bonded to the core with water-resistant adhesives. Face veneer shall be any species, sound grade. With exposed edges of factory-applied edge banding, same species as the face veneer. Plywood core shall be hardwood or softwood veneer core type. Exposed edges shall receive factory installed hardwood edges, same species as the face veneer..

#### 2.1.2 Particleboard

Wood particleboard shall be a mat-formed particleboard conforming to ANSI A208.1, Type I (interior) medium density, Grade 1-M-2. Board shall be laminated construction, composed of large wood flakes at the core and finer wood flakes at each surface. Flakes shall be coated and bonded with urea-formaldehyde resin under heat and pressure-formed into boards. When tested in accordance with ASTM D 1037 and in addition to complying with the properties listed in ANSI A208.1, water absorption shall not exceed 15 percent in 24 hours, swelling thickness shall not exceed 6 percent in 24 hours, and maximum moisture content shall not exceed 7 percent. Wood particleboard intended for use as exposed or semi-exposed shelving or casework shall be sanded and sealed on both surfaces; exposed edges shall be trimmed with solid poplar, birch, or oak, with tongue-and-groove joint glued to the particleboard with water-resistant glue.

#### 2.1.3 Construction

Construction shall be plumb, square, and true; accurately milled and fabricated to details with clean-cut profiles and lines. Accurately size the cabinets, counters, and casework to the indicated dimensions. Surfaces shall be flat, true, free of planer marks or other marks, and smoothly sanded. Select best wood pieces with most uniform grain and color for exposed surfaces. Where possible, conceal fastenings; where not possible, locate fastenings in inconspicuous places. Where nailing is permitted on exterior exposed faces, conceal nailheads. Do not fasten with exposed nails in hardwood. Mortise, tenon, spline, house, joint, block, nail, screw, glue, or bolt together, as approved, in manner to provide rigidity, to avoid swelling or shrinking, and to insure work to remain in place without warping, splitting, and opening of joints. Furnish and securely install cleats, nailers, strips, blocking, hangers, anchors, moldings, and the like, required to neatly and securely install cabinets, counters, and casework.

##### 2.1.3.1 Framing

Cabinets and counters, constructed in place shall have frame fronts and solid ends, or frame construction throughout. Frame member shall be kiln-dried hardwood, mortised and tenoned, dovetailed or doweled, and glued together. Top and bottom corners shall be braced with hardwood blocks that are glued with water-resistant glue and nailed in place. Continuous back panels shall be provided for all mill-fabricated counters, cabinets, shelving, and casework. Back panels shall be minimum thick hardwood plywood, sound grade, or tempered hardboard when painted or concealed. Exposed or semi-exposed backs shall be hardwood plywood of the same veneer

as the face of the cabinet. Bottoms of cabinets shall be minimum thick plywood good grade and shall be braced with wood members glued in place. Cabinet ends shall be hardwood plywood. thick medium density particleboard core with hardwood veneers. Shelves shall be fully adjustable and shall be minimum thick plywood.

#### 2.1.3.2 Counter and Cabinet Bases

Bases shall be constructed of thick wood framing, members cut to fit, with toe space of the indicated height and depth. Cross rails shall be provided at cabinet ends, points of concentrated loads, and intervals not to exceed .

#### 2.1.3.3 Doors and Drawer Fronts

Door design shall be solid flush face. Flush doors shall be hardwood plywood with matching solid hardwood edges. Lipped doors shall be hardwood plywood with lumber core. Drawer fronts shall be at least thick solid wood or edge-banded hardwood plywood with veneer species to match cabinet. Doors and drawer fronts, including edges, shall be covered with shop-applied plastic laminate as shall all surfaces including shelves when the doors are open.

#### 2.1.3.4 Countertops and Backsplashes

Countertops and backsplashes shall be constructed of plywood, Grade B-D or better, and covered with shop-applied plastic laminate. Countertops shall be at least thick. Backsplash shall be plywood, Grade B-D or better thick. Unless otherwise indicated, backsplashes shall be not less than high.

#### 2.1.4 Fasteners and Adhesives

##### 2.1.4.1 Nails

Nails shall be steel casing nails with flat countersunk cupped head and diamond point.

##### 2.1.4.2 Adhesives

Adhesives shall be moisture- and mold-resistant. Adhesive shall also be contact type for adhering plastic laminate sheets.

##### 2.1.4.3 Wood Screws

Wood screws shall be carbon steel or brass. Wood screws exposed to view shall be brass with an oval head with cross recess drive.

#### 2.2 CABINET HARDWARE

Cabinet finish hardware shall conform to the types and styles of BHMA A156.9.

Screws and attachments shall be finished to match the hardware item.

Finishes shall be 639 for hardware items having a base metal of steel, 612 for hardware items having a base metal of bronze or brass.

##### 2.2.1 Shelf Supports

###### 2.2.1.1 Flush-Applied Supports

Flush-applied, adjustable shelf supports shall be B24071, wrought brass, nickel plated with increment adjustment slots and with provision for screw fastening on vertical center.

#### 2.2.2 Cabinet Hinges

Cabinet hinges shall be wrought steel or brass, designated size and finish and shall conform to BHMA A156.9, as follows:

Semi-concealed hinges B81251 shall be 5-knuckle, button tip, brass finish.

Concealed hinges for flush doors shall be B81501.

#### 2.2.3 Cabinet Catches

Cabinet catches shall be B43142, magnetic catches, aluminum case, minimum pull.

#### 2.2.4 Pulls

Door and drawer pulls shall be B12011, contemporary-design, cast bronze, centers, screw attached from inside of door or drawer.

#### 2.2.5 Drawer Slides

Drawer slides shall be B85051, ball bearing full extension drawer slides for attachment to each side of drawer. Rubber stops shall be provided at striking points.

### 2.3 PLASTIC LAMINATES

#### 2.3.1 CounterTops, Edges, and Backsplashes

Countertop surface, edge, and backsplash shall be covered with high-pressure plastic laminate, general-purpose type, conforming to NEMA LD 3, Type GP50. Color, pattern, and finish shall be Section 09000 BUILDING COLOR AND FINISH SCHEDULE.

#### 2.3.2 All Exposed Surfaces

Plastic laminate surfaces for drawer and counter fronts, exposed-to-view ends, and doors shall be high-pressure plastic laminate, general purpose type, conforming to NEMA LD 3, Type GP50. Color, pattern, and finish shall be as indicated in Section 09000 BUILDING COLOR AND FINISH SCHEDULE].

### 2.4 SINK RIMS

Sink rims shall be corrosion resistant steel, clamping type, sized to the sink, and a standard product of a manufacturer regularly producing this type of equipment.

[AM0002]2.5 2.6 GROMMET KITS

Grommet kits or another suitable finish arrangements shall be provided for all cable cutouts indicated on sheet A31 of the drawings. (Room G234 2 locations; Room G235, 1 location; Rooms G201/H203, 6 locations.) For every location required, one grommet is located at the counter top and one grommet is located below in the cabinet bottom.

### PART 3 EXECUTION

#### 3.1 GENERAL

Casework shall be installed only when temperature and humidity conditions approximate the interior conditions that will exist when the building is occupied. The relative humidity in the building at the time of installation of materials shall be within the limits recommended by the manufacturer. Casework shall be installed level, plumb, and true to line, and shall be attached to the walls or floors with concealed toggle bolts. Countertops, accessories, and hardware shall be installed as indicated. Closure and filler strips and finish moldings shall be provided as required. Make neat, close-fitting cut-outs for indicated sinks, plumbing, and other items projecting through tops. Carefully locate cut-outs for pipes so that edges of holes will be covered by escutcheons. The inner edge of sink cut-outs shall be painted with a coat of semigloss enamel paint; sink flanges shall be set in a bed of sealants. Prior to final acceptance, the Contractor shall align all doors, adjust all hardware, and leave cabinets in a clean and neat condition.

##### 3.1.1 Counters

Conceal fastenings where practicable, fit the counter neatly, install in a rigid and substantial manner, and scribe to adjoining surfaces. Provide counter sections in the longest lengths practicable; keep joints in tops to a minimum; and where joints are necessary, provide tight hairline joints drawn up with concealed-type heavy pull-up bolts. Glue joints with water-resistant glue and, in addition, make rigid and substantial with screws, bolts, or other approved fastenings.

##### 3.1.2 Nailing

Exposed nailing shall be countersunk finishing nails; the countersunk holes shall be filled with a matching wood filler or putty. Staples shall not be permitted in exposed cabinet or casework.

##### 3.1.3 Finishing

Exposed wood surfaces shall be machine sanded at the mill to the specified standard and then shall receive a final sanding at the site to a smooth clean finish, free of machine or tool marks, abrasions, raised grain, or similar imperfections.

#### 3.2 APPLICATION OF PLASTIC LAMINATE

Plastic laminate shall be a continuous sheet of the longest length practicable. Joints in the surface sheeting shall be tight and flush, and held to a practical minimum number. Apply with contact type adhesive, type as recommended by the manufacturer of the laminate, applied to both surfaces. The edging and trim shall consist of strips of laminate cut and fitted to all exposed edges with approved contact adhesive.

-- End of Section --

SECTION 07240

EXTERIOR FINISH SYSTEM

06/93

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 117	(1995) Operating Salt Spray (Fog) Testing Apparatus
ASTM C 67	(1996) Sampling and Testing Brick and Structural Clay Tile
ASTM C 473	(1995) Physical Testing of Gypsum Board Products and Gypsum Lath
ASTM C 578	(1995) Rigid, Cellular Polystyrene Thermal Insulation
ASTM C 920	(1995) Elastomeric Joint Sealants
ASTM C 947	(1989; R 1996) Flexural Properties of Thin-Section Glass-Fiber-Reinforced Concrete (Using Simple Beam With Third-Point Loading)
ASTM C 948	(1981; R 1994) Dry and Wet Bulk Density, Water Absorption and Apparent Porosity of Thin Sections of Glass-Fiber-Reinforced Concrete
ASTM C 1149	(1990) Self-Supported Spray Applied Cellulosic Thermal/Acoustical Insulation, or Both
ASTM D 968	(1993) Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D 2394	(1983; R 1993) Simulated Service Testing of Wood and Wood-Base Finish Flooring
ASTM E 72	(1995) Conducting Strength Tests of Panels for Building Construction
ASTM E 84	(1996) Surface Burning Characteristics of Building Materials
ASTM E 96	(1995) Water Vapor Transmission of

## Materials

ASTM E 136	(1995) Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C
ASTM E 330	(1990) Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference
ASTM G 23	(1996) Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials
ASTM G 53	(1996) Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) For Exposure of Nonmetallic Materials

## EIFS INDUSTRY MEMBERS ASSOCIATION (EIMA)

EIMA TM 101.86	(1995; Rev Aug 1995) Resistance of Exterior Insulation Finish Systems (EIFS), Class PB to The Effects of Rapid Deformation (Impact)
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## INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO)

ICBO-01	(1997) Uniform Building Code (3 Vol.)
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## 1.2 DESCRIPTION

The exterior finish system (efs) shall be a job-fabricated exterior wall covering consisting of reinforcing fabric, base coat, finish coat, and accessories. The system shall be the standard product of a manufacturer regularly engaged in furnishing exterior finish systems and shall be installed by an applicator approved by the system manufacturer. EFS shall be sand finish and color as specified in Section 09000: BUILDING COLOR AND FINISH SCHEDULE. finish.

## 1.3 PERFORMANCE REQUIREMENTS

## 1.3.1 Test Specimens

Unless otherwise noted, the test specimens shall consist of reinforcement, base coat and finish coat applied in accordance with the manufacturer's printed recommendations to A BASE board common to the system. These test specimens shall be suitably sized for the apparatus used and be allowed to cure for a minimum of 28 days prior to testing.

## 1.3.2 Flame Spread

Flame spread test samples consist of base coat, fabric and finish coat, mounted on a non-combustible substrate. When tested in accordance with ASTM E 84, the samples shall have a flame spread rating of 25 or less.

## 1.3.3 Full Scale Wall Fire Test

Full scale wall fire test specimens shall include the complete system. Test shall be performed in accordance with ICBO-01, Section 17-6. The specimen shall not contribute to significant or horizontal flame spread.

#### 1.3.4 Structural Performance Test

The system shall have been tested in accordance with ASTM E 330 to minimum positive and negative pressures of 30 Test panels shall be by minimum, consisting of the typical system assembly.

#### 1.4 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

##### SD-06 Instructions

Exterior Finish System; FIO.

Two copies of manufacturer's standard printed instructions for installation of the system. Instructions shall include manufacturer's recommended details for corner treatment, jambs, sills, openings, joints and other special applications.

##### SD-08 Statements

Manufacturer's Approval and License; FIO.

Statement from manufacturer attesting that the applicator is approved and licensed to install the system.

##### SD-09 Reports

Exterior Finish System; FIO.

Test Reports indicating that the system complies with the specified performance tests. Tests shall be by an approved, independent testing laboratory.

##### SD-14 Samples

Exterior Finish System; FIO.

Two samples of each exterior insulation and finish system. Each sample shall be minimum, and shall be identical to the proposed installation in thickness, color, texture, insulation and workmanship.

#### 1.5 DELIVERY AND STORAGE

Materials shall be delivered to the jobsite in their original unopened packages, clearly marked with the manufacturer's name, brand name, and description of contents. Storage shall be in accordance with the manufacturer's recommendations in a clean, dry, well-ventilated area. Stored materials shall be protected from sunlight, and kept away from excessive heat. Coating materials which would be damaged by freezing shall be kept at a temperature not less than Insulation board shall not be exposed to flame or other ignition sources.

#### PART 2 PRODUCTS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

## 2.1 EXTERIOR CEMENT BOARD

Exterior cement board shall be a non-combustible exterior grade portland cement product. Board shall be with a minimum thickness. Boards shall consist of an aggregated portland cement core faced on both surfaces and wrapped on long edges with an embedded polymer-coated glass fiber mesh. Bonding surface shall have rough texture. Exterior cement board shall comply with the following requirements:

## 2.2 BASE COAT

Base coat shall be the manufacturer's standard product and shall be compatible with the finish coat.

## 2.3 REINFORCING FABRIC

Reinforcing fabric shall be balanced, open weave, glass fiber fabric made from twisted multi-end strands specifically treated for compatibility with the other materials of the system.

## 2.4 MECHANICAL ANCHORS

Mechanical anchors shall be as recommended by the system manufacturer.

## 2.5 FINISH COATING

Finish coating shall be manufacturer's standard product, uniform in color and conforming to the following requirements. Specimens for tests shall have been cured for a minimum of 28 days.

## 2.6 SEALANT

Sealant shall meet requirements of ASTM C 920, Class 25, and shall be compatible with the finish system. Type, Grade, and Use shall be as recommended by both the sealant manufacturer and the system manufacturer. When required, primer, bond breaker and backstop shall be non-staining, and as recommended by the sealant manufacturer and the system manufacturer.

## 2.7 ACCESSORIES

Accessories shall conform to the recommendations of the system manufacturer and shall include trim, edging, anchors, sealant and filler rod required for proper installation of the system.

## PART 3 EXECUTION

### 3.1 SURFACE PREPARATION

Surface shall be free of oil, loose materials or protrusions which will interfere with the system installation.

### 3.2 ENVIRONMENTAL CONDITION

Unless a higher temperature is required by the system manufacturer, the ambient air temperature shall be or greater and rising at the time of installation of the system and shall be predicted to remain at or greater for at least 24 hours after installation.

### 3.3 EXTERIOR CEMENT BOARD

Exterior cement board shall be attached to metal studs with self-tapping wafer-head, corrosion resistant screws. Screws and nails for application of the board shall be spaced not more than      on each supporting member. Fasteners shall be more closely spaced when required for negative wind load resistance. Edges and ends of boards shall be butted snugly with vertical joints staggered to provide full and even support for the insulation. Joints shall be treated with exterior tape as recommended by system manufacturer.

#### 3.4 REINFORCING FABRIC

Un Reinforcing glass fabric shall be installed in accordance with the manufacturer's instructions.

#### 3.5 BASE COAT

Base coat shall be mixed in accordance with the manufacturer's instructions and applied to insulated wall surfaces, trowelling the material into the reinforcing fabric in a tight coat and doubling back to provide complete coverage of the reinforcing fabric, panel joints and fasteners. Base coat may be used to level out surface areas when permitted by the manufacturer.

#### 3.6 FINISH COATING

Finish coating shall be applied and leveled in one operation. Final texture shall be obtained by trowels, floats, or by spray application as necessary to achieve the required finish. Finish surfaces shall be plane, with no deviation greater than      when tested with a 3 m straightedge.

#### 3.7 SEALANT

Edges of the exterior insulation and finish system shall be sealed at openings as recommended by the system manufacturer.

-- End of Section --

SECTION 07600

SHEET METALWORK, GENERAL

10/94

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 167	(1996) Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
ASTM A 526	(1990) Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process
ASTM B 32	(1996) Solder Metal
ASTM B 209	(1996) Aluminum and Aluminum-Alloy Sheet and Plate
ASTM B 221	(1996) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM B 370	(1992) Copper Sheet and Strip for Building Construction
ASTM D 226	(1997) Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
ASTM D 543	(1995) Evaluating the Resistance of Plastics to Chemical Reagents
ASTM D 822	(1996) Conducting Tests on Paint and Related Coatings and Materials Using Filtered Open-Flame Carbon-Arc Exposure Apparatus
ASTM D 828	(1993) Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation-Apparatus
ASTM D 1784	(1996) Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
ASTM D 2822	(1991; R 1997) Asphalt Roof Cement
ASTM D 3656	(1994) Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Yarns

ASTM D 4022	(1994) Coal Tar Roof Cement, Asbestos Containing
ASTM D 4586	(1993) Asphalt Roof Cement, Asbestos Free
ASTM E 96	(1995) Water Vapor Transmission of Materials

## INSECT SCREENING WEAVERS ASSOCIATION (ISWA)

ISWA IWS 089	(1990) Recommended Standards and Specifications for Insect Wire Screening (Wire Fabric)
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## SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA)

SMACNA-02	(1993; Errata) Architectural Sheet Metal Manual
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## 1.2 GENERAL REQUIREMENTS

Sheet metalwork shall be accomplished to form weathertight construction without waves, warps, buckles, fastening stresses or distortion, and shall allow for expansion and contraction.

## 1.2.1 Coordination

Cutting, fitting, drilling, and other operations in connection with sheet metal required to accommodate the work of other trades shall be performed by sheet metal mechanics. Application of bituminous strip flashing over various sheet metal items is covered in Section 07510 BUILT-UP ROOFING. Installation of sheet metal items used in conjunction with roofing shall be coordinated with roofing work to permit continuous roofing operations. Sheet metalwork pertaining to heating, ventilating, and air conditioning is specified in Division 15.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Materials; FIO.

Drawings of sheet metal items showing weights, gauges or thicknesses; types of materials; expansion-joint spacing; fabrication details; and installation procedures.

## 1.4 DELIVERY, STORAGE, AND HANDLING

Materials shall be adequately packaged and protected during shipment and shall be inspected for damage, dampness, and wet-storage stains upon delivery to the jobsite. Materials shall be clearly labeled as to type and manufacturer. Sheet metal items shall be carefully handled to avoid

damage. Materials shall be stored in dry, ventilated areas until immediately before installation.

## PART 2 PRODUCTS

[AM0002] Exposed products shall match Phase I of Force XXI Soldier Development Center

### 2.1 MATERIALS

Materials shall conform to the requirements specified below and to the thicknesses and configurations established in TABLE I. All materials shall be compatible with roofing manufacturer's recommendations. All materials used for the elastomeric (CSPE) roofing assembly shall be in accordance with roofing manufacturer's recommendations. All materials used with the standing seam metal roofing system shall be in accordance with systems manufacturer's recommendations.

#### 2.1.1 Accessories

Accessories and other items essential to complete the sheet metal installation, though not specifically indicated or specified, shall be provided.

#### 2.1.2 Aluminum Extrusions

ASTM B 221, Alloy 6063, Temper T5.

#### 2.1.3 Bituminous Cement

Type I asphalt cement conforming to ASTM D 2822 or ASTM D 4586. For coal tar roofing; coal tar cement conforming to ASTM D 4022.

#### 2.1.4 Sealant

Unless otherwise specified, sealant shall be an elastomeric weather resistant sealant as specified in Section 07900 JOINT SEALING.

#### 2.1.5 Fasteners

Fasteners shall be compatible with the fastened material and shall be the type best suited for the application.

#### 2.1.6 Felt

ASTM D 226, Type I.

#### 2.1.7 Polyvinyl Chloride (PVC) Reglets

ASTM D 1784, Class 14333D, 1.9 mm minimum thickness.

#### 2.1.8 Galvanized Steel

ASTM A 526 with coating designation G90, not chemically treated, not oiled, phosphatized, factory prefinished. Prefinished galvanized steel shall be factory primed and coated with a full strength fluoropolymer (containing a minimum of 70 percent Kynar 500 resin). Color shall be a syndicated in 09000 BUILDING COLOR AND FINISH SCHEDULE. Prefinish coating shall carry a 20-year manufacturer's warranty against cracking, peeling, blistering, color change in excess of 5 NBS units as measured in accordance with \-ASTM

D 2244-\, and chalking in excess of 8 as measured in accordance with \-ASTM D 4214-\. Refer to SECTION: 07416: STRUCTURAL STANDING SEAM METAL ROOF (SSMR) SYSTEM for specifications on the finishes required.

#### 2.1.9 Copper

ASTM B 370, Temper H 00.

#### 2.1.10 Solder

ASTM B 32, 95-5 tin-antimony.

#### 2.1.11 Through-Wall Flashing

- c. Nonreinforced, waterproof, impermeable extruded elastomeric single ply sheeting not less than thick.
- d. copper sheet, with of dense, clear, polyethylene sheet bonded to each side of the copper.
- e. Other through-wall flashing material may be used provided the following performance criteria are met.

(1) No cracking or flaking when bent 180 degrees over a mandrel and rebent at the same point over the same mandrel in an opposite direction at

(2) Water vapor permeability not more than when tested in accordance with ASTM E 96.

(3) Minimum breaking strength of width in the weakest direction when tested in accordance with ASTM D 828.

(4) No visible deterioration after being subjected to a 400-hour direct weathering test in accordance with ASTM D 822.

(5) No shrinkage in length or width and less than 5 percent loss of breaking strength after a 10-day immersion, per ASTM D 543, in 5 percent (by weight) solutions, respectively, of sulfuric acid, hydrochloric acid, sodium hydroxide or saturated lime (calcium hydroxide).

#### 2.1.12 Louvers

Louvers shall be fabricated of galvanized steel or stainless steel in accordance with the details shown in SMACNA-02. Fixed blades shall be accurately fitted and firmly secured to the frame by riveting and soldering. The edges of louver blades shall be folded or beaded for rigidity, and baffled to exclude driving rain. Louvers shall bear the AMCA Certified Ratings Seal for air performance and water penetration ratings as described in AMCA 500.

#### 2.1.13 Louver Screen

Type I commercial bronze insect screening conforming to ISWA IWS 089.

### PART 3 EXECUTION

#### 3.1 GENERAL

Items such as gutters, downspouts and louvers shall be fabricated in conformance with SMACNA-02 and as indicated. Unless otherwise specified or indicated, exposed edges shall be folded back to form a hem on the concealed side, and bottom edges of exposed vertical surfaces shall be angled to form drips. Bituminous cement shall not be placed in contact with roofing membranes other than built-up roofing.

#### 3.2 EXPANSION JOINTS

Expansion joints shall be provided as specified in SMACNA-02. Expansion joints in continuous sheet metal shall be provided at intervals for copper and galvanized steel except extruded aluminum gravel stops and fasciae which shall have expansion joints at not more than spacing. Joints shall be evenly spaced. An additional joint shall be provided where the distance between the last expansion joint and the end of the continuous run is more than half the required interval spacing.

#### 3.3 PROTECTION OF ALUMINUM

Aluminum and galvanized steel shall not be used where it will be in contact with copper and galvanized steel or where it will contact water which flows over copper surfaces. Aluminum that will be in contact with wet or pressure-treated wood, mortar, concrete, masonry, or ferrous metals shall be protected against galvanic or corrosive action by one of the following methods:

##### 3.3.1 Paint

Aluminum and galvanized steel surfaces shall be solvent cleaned and given one coat of zinc-molybdate primer and one coat of paint as specified in Section 09900 PAINTING, GENERAL.

##### 3.3.2 Nonabsorptive Tape or Gasket

Nonabsorptive tape or gasket shall be placed between the adjoining surfaces and cemented to the aluminum and galvanized steel surface using a cement compatible with aluminum or galvanized steel.

#### 3.4 CONNECTIONS AND JOINTING

##### 3.4.1 Soldering

Soldering shall apply to copper, galvanized steel and stainless steel items. Edges of sheet metal shall be pretinned before soldering is begun. Soldering shall be done slowly with well heated soldering irons so as to thoroughly heat the seams and completely sweat the solder through the full width of the seam. Soldering shall follow immediately after application of the flux. Upon completion of soldering, the acid flux residue shall be thoroughly cleaned from the sheet metal with a water solution of washing soda and rinsed with clean water.

##### 3.4.2 Riveting

Joints in aluminum or galvanized steel sheets or less in thickness shall

be mechanically made.

### 3.4.3 Seaming

Flat-lock and soldered-lap seams shall finish not less than wide. Unsoldered plain-lap seams shall lap not less than unless otherwise specified. Flat seams shall be made in the direction of the flow.

### 3.5 CLEATS

A continuous cleat shall be provided where indicated or specified to secure loose edges of the sheet metalwork. Butt joints of cleats shall be spaced approximately apart. The cleat shall be fastened to supporting wood construction with nails evenly spaced not over on centers. Where the fastening is to be made to concrete or masonry, screws shall be used and shall be driven in expansion shields set in concrete or masonry.

### 3.6 GUTTERS AND DOWNSPOUTS

Gutters and downspouts shall be installed as indicated. Gutters shall be supported as indicated. Downspouts shall be rigidly attached to the building. Supports for downspouts shall be spaced according to manufacturer's recommendations.

### 3.7 FLASHINGS

Flashings shall be installed at locations indicated and as specified below. Sealing shall be according to the flashing manufacturer's recommendations. Flashings shall be installed at intersections of roof with vertical surfaces and at projections through roof, except that flashing for heating and plumbing, including piping, roof, and floor drains, and for electrical conduit projections through roof or walls are specified in other sections. Except as otherwise indicated, counter flashings shall be provided over base flashings. Perforations in flashings made by masonry anchors shall be covered up by an application of bituminous plastic cement at the perforation. Flashing shall be installed on top of joint reinforcement. Flashing shall be formed to direct water to the outside of the system.

#### 3.7.1 Base Flashing

Metal base flashing shall be coordinated with roofing work. Metal base flashing shall be set in plastic bituminous cement over the roofing membrane, nailed to nailing strip, and secured in place on the roof side with nails spaced not more than on centers. Metal base flashing shall not be used on built-up roofing.

#### 3.7.2 Counter Flashings

Except as otherwise indicated, counter flashings shall be provided over base flashings. Counter flashing shall be installed as shown on the drawings. Where bituminous base flashings are provided, the counter flashing shall extend down as close as practicable to the top of the cant strip or lap the base flashing a minimum of 4 inches. Counter flashing shall be factory formed to provide spring action against the base flashing.

#### 3.7.3 Stepped Flashing

Stepped flashing shall be installed where sloping roofs surfaced with shingles abut vertical surfaces. Separate pieces of base flashing shall be

placed in alternate shingle courses.

### 3.7.4 Through-Wall Flashing

Through-wall flashing includes sill, lintel, and spandrel flashing. The flashing shall be laid with a layer of mortar above and below the flashing so that the total thickness of the two layers of the mortar and flashing are the same thickness as the regular mortar joints. Flashing shall not extend further into the masonry backup wall than the first mortar joint. Joints in flashing shall be lapped and sealed. Flashing shall be one piece for lintels and sills.

#### 3.7.4.1 Lintel Flashing

Lintel flashing shall extend the full length of lintel. Flashing shall extend through the wall one masonry course above the lintels and shall be bent down over the vertical leg of the outer steel lintel angle not less than or shall be applied over top of masonry and precast concrete lintels. Bedjoints of lintels at control joints shall be underlaid with sheet metal bond breaker.

#### 3.7.4.2 Sill Flashing

Sill flashing shall extend the full width of the sill and not less than beyond ends of sill except at control joint where the flashing shall be terminated at the end of the sill.

### 3.7.5 Valley Flashing

Valley flashing shall be installed as specified in SMACNA-02 and as indicated.

### 3.8 FASCIA

Gravel stops and fascia shall be fabricated and installed as indicated and in accordance with SMACNA-02.

### 3.9 INSTALLATION OF LOUVERS

Louvers shall be rigidly attached to the supporting construction. The installation shall be rain-tight. Louver screen shall be installed as indicated.

### 3.10 REGLETS

Reglets shall be a factory fabricated product of proven design, complete with fittings and special shapes as required. Open-type reglets shall be filled with fiberboard or other suitable separator to prevent crushing of the slot during installation. Reglet plugs shall be spaced not over on centers and reglet grooves shall be filled with sealant. Friction or slot-type reglets shall have metal flashings inserted the full depth of slot and shall be lightly punched every to crimp the reglet and counter flashing together. Polyvinyl chloride reglets shall be sealed with the manufacturer's recommended sealant.

### 3.11 CONTRACTOR QUALITY CONTROL

The Contractor shall establish and maintain a quality control procedure for sheet metal used in conjunction with roofing to assure compliance of the

installed sheet metalwork with the contract requirements. Any work found not to be in compliance with the contract shall be promptly removed and replaced or corrected in an approved manner. Quality control shall include, but not be limited to, the following:

- a. Observation of environmental conditions; number and skill level of sheet metal workers; condition of substrate.
- b. Verification of compliance of materials before, during, and after installation.
- c. Inspection of sheet metalwork for proper size and thickness, fastening and joining, and proper installation.

The actual quality control observations and inspections shall be documented and a copy of the documentation furnished to the Contracting Officer at the end of each day.

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES

Item Description	_____	_____	_____	Gal- vanized steel, gage
<u>EXPOSED SHEET METAL:</u>				
Waterstop- bellows or flanged- U-type.....	_____	_____	_____	24
Cleats (Continuous)..	_____	_____	_____	20
Covering on minor flat, pitched or curved surfaces.....	_____	_____	_____	24
Downspouts, heads and leaders.....	_____	_____	_____	24
<u>Flashings:</u>				
Base.....	_____	_____	_____	24

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES(cont)

Item Description	_____	_____	_____	Gal- vanized steel, gage
Cap, stepped or valley.....	_____	_____	_____	24
Fasciase Extrusions	_____	_____	_____	
sheets, corrugated	_____	_____	_____	24
sheets, smooth	_____	_____	_____	24
<u>Gutters (girth):</u>				

Up to 15 inches.....	26
15 to 20 inches.....	24
20 to 25 inches.....	22
25 to 30 inches.....	20
<u>Gutter brackets (girth):</u>	
Up to 15 inches.....	1/8"x1"
15 to 20 inches.....	1/8'x 1-1/2"
20 to 24 inches.....	1/8"x2"
<u>Gutter cleats and cover plates.....</u>	
	26
<u>Scupper, conductor head and lining....</u>	
	25
<u>Strainers (wire gage).....</u>	
	No.12
<u>Reglets.....</u>	
	----
<u>Counterflashings...</u>	
	24
<u>Pressure Bars.....</u>	
	1/4x3/16x2"
<u>Expansion Joint Curb Clip.....</u>	
	1/8x8"
<u>Counterflashing Receiver.....</u>	
	20
<u>Cradle Support.....</u>	
	3/16x1"
<u>Sanitary Vent Pipe Flashing*.....</u>	
	24
<u>Tubular Penetration Flashing.....</u>	
	24

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES(cont)

Item Description	Galvanized steel, gage
"H" Column hood flashing.....	16
Bond breaker.....	----

\*4 lb. lead and preformed neoprene also recommended for metal and PVC pipes, respectively.

Coping.....	25
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Pitch pockets.....	24
Through-wall, flashings above roof line.....	----
Through-wall, below roof line, except as otherwise specified in paragraph MATERIALS	----

TABLE 1. SHEET METAL WEIGHTS, THICKNESSES, AND GAGES

Item Description		Gal- vanized steel, gage
Building expansion joint at roof	1-1/4 inch single lock standing seam, cleated.	
Cleats (Continuous)	Butt	
Flashings: Base	1-inch, flat locked, soldered.	Use hard setting sealant for locked aluminum joints
Item Description		Gal- vanized steel, gage
	3-inch lap for expansion joint.	Each expansion joint for all metals shall have one continuous strip of 1/16-inch thick by 1/4-inch wide preformed tape sealant.
Cap-in reglet	3-inch lap	Seal groove with elastomeric sealant (a).

Cap-two- piece	Receiver 3-inch lap.	
	Cap piece 3-inch lap.	
Stepped	3-inch lap.	
Through-wall spandrel flashing (metal)	1-1/2 inch mechanical interlock.	
Through-wall spandrel flashing (Coated or non- metal)		3 inch lap with sealant
Valley	6 inch lap, cleated	
Gutters	1-1/2 inch lap, riveted and soldered.	Use hard setting sealant for locked aluminum joints.
Pitch pockets	1-inch soldered lap.	Use hard setting sealant for locked aluminum joints.
Reglets	Butt joint	Seal reglet groove with elastomeric sealant. (a)

(a) Polyvinyl chloride type reglet shall be sealed with manufacturer's recommended butyl rubber sealant.

-- End of Section --

SECTION 08120

ALUMINUM DOORS AND FRAMES

07/98

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ALUMINUM ASSOCIATION (AA)

AA DAF-45 (1980; R 1993) Designation System for Aluminum Finishes

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

AAMA 605 (1998) Voluntary Specification for High Performance Organic Coatings on Architectural Aluminum Extrusions and Panels

AAMA 1503.1 (1988) Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 209 (1996) Aluminum and Aluminum-Alloy Sheet and Plate

ASTM B 209M (1995) Aluminum and Aluminum-Alloy Sheet and Plate (Metric)

ASTM B 221 (1996) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM B 221M (1996) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric)

ASTM E 283 (1991) Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

ASTM E 330 (1990) Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference

ASTM E 331 (1996) Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference

## 1.2 SYSTEM DESCRIPTION

Frames and swing-type aluminum doors, of size and design shown on the drawings, shall be provided at the locations indicated. Frames shall be furnished complete with doors, subframes, transoms, adjoining sidelights, adjoining window wall system, trim, and other accessories indicated and specified for complete installation. Adjoining sidelights and window walls shall have horizontal safety rails..

## 1.3 PERFORMANCE REQUIREMENTS

### 1.3.1 Wind Load Performance

Doors frames and window walls shall be of sufficient strength to withstand a design wind load of of supported area with a deflection of not more than 1/240 times the length of the member with 3/4" maximum deflection. Doors shall be tested in accordance with ASTM E 330 at a pressure not less than 1.5 times the design load.

### 1.3.2 Water Penetration Performance

Frames and fixed areas, and non-handicap complying doors shall have no water penetration when tested in accordance with ASTM E 331 at a pressure of.

## 1.4 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

### SD-01 Data

Aluminum Doors and Frames and Window Wall; FIO.

Manufacturer's descriptive data and catalog cuts including air-infiltration data.

### SD-04 Drawings

Aluminum Doors and Frames and Window Wall; FIO.

A schedule showing the location of each door and window wall system shall be included with the drawings. Drawings showing elevations of each door and frame type, details and method of anchorage, details of construction, location and installation of hardware, shape and thickness of materials, and details of joints and connections.

### SD-06 Instructions

Installation; FIO. Cleaning; FIO.

Manufacturer's installation instructions and cleaning instructions.

### SD-09 Reports

Aluminum Doors; FIO.

For full-glazed and flush doors, certified test reports from an independent testing laboratory, stating that doors are identical in design, materials, and construction to a door that has been tested and meets all test and specified requirements.

SD-14 Samples

Finishes; FIO.

Samples of the color anodized coating, showing the extreme color range.

#### 1.5 DELIVERY AND STORAGE

Materials delivered to the jobsite shall be inspected for damage, and shall be unloaded with a minimum of handling. Storage shall be in a dry location with adequate ventilation, free from dust, water, and other contaminants, and which permits easy access for inspecting and handling. Materials shall be neatly stored on the floor, properly stacked on nonabsorptive strips or wood platforms. Doors and frames shall not be covered with tarps, polyethylene film, or similar coverings.

#### 1.6 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a one-year period shall be provided.

### PART 2 PRODUCTS

[AM0002]Products shall match Phase I of Force XXI Soldier Development Center

#### 2.1 ALUMINUM DOORS, FRAMES AND WINDOW WALLS

Extrusions shall comply with , Alloy 6063-T5 or -T6, except alloy used for anodized color coatings shall be required to produce the specified color. Aluminum sheets and strips shall comply with , alloy and temper best suited for the purpose. Fasteners shall be hard aluminum or stainless steel.

##### 2.1.1 Finishes

Finish shall be color anodized. Color anodized finish shall be AA-M10C22A44 in accordance with the requirements of AA DAF-45. Color shall be as specified in Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

##### 2.1.2 Welding and Fastening

Where possible, welds shall be located on unexposed surfaces. Welds required on exposed surfaces shall be smoothly dressed. Welding shall produce a uniform texture and color in the finished work, free of flux and spatter. Exposed screws or bolts will be permitted only at inconspicuous locations and shall have heads countersunk.

##### 2.1.3 Anchors

Anchors shall be stainless steel or steel with a hot-dipped galvanized finish. Anchors of the sizes and shapes required shall be provided for securing aluminum frames to adjacent construction. Anchors shall be placed near top and bottom of each jamb and at intermediate points not more than apart. Transom bars shall be anchored at ends, and mullions shall be anchored at head and sill. Where required, vertical mullion reinforcement

shall be of sufficient length to extend up to the overhead structural slab or framing and be securely attached thereto. The bottom of each frame shall be anchored to the rough floor construction with thick stainless steel angle clips secured to the back of each jamb and to floor construction. Stainless steel bolts and expansion rivets shall be used for fastening clip anchors. Door frames free of window wall system shall be reinforced and securely anchored to floor construction.

#### 2.1.4 Hardware

Door manufacturer furnished Hardware for aluminum doors is specified below.

Other hardware is specified in Section 08700 BUILDERS' HARDWARE. Door manufacturer furnished Hardware shall be installed in the doors prior to delivery at the job site. Doors and frames shall be cut, reinforced, drilled, and tapped at the factory to receive template hardware. Reinforcement shall be provided in the core of doors as required to receive locks, door closers, and other hardware. Doors to receive surface applied hardware shall be reinforced as required.

##### HW-1 Door No. 1, 3, 5

2 sets Pivots, C07131 by door manufacturer x finish to match door  
 1 ea. Exit devices, Von Duprin, Type 6, Function 08 x Electric latch retraction x Request to exit switch x finish to match doors  
 1 ea. Exit devices, Von Duprin, Type 6, Function 02 x Electric latch retraction x Request to exit switch x finish to match doors  
 2 ea. Closers, C05041 by door manufacturer x 689, "Low Opening Resistance"

##### HW-2 Door No. 7

1 sets Pivots, C07131 by door manufacturer x finish to match door  
 1 ea. Exit devices, Von Duprin, Type 6, Function 01 x finish to match door  
 2 ea. Closers, C05041 by door manufacturer x 689, "Low Opening Resistance"

##### HW-14 Door No. 20

3 sets Pivots, C07131 by door manufacturer x finish to match door  
 1 ea. Exit devices, Von Duprin, Type 6, Function 08 x finish to match doors x Electric latch retraction x Request to exit switch (See Section 01610)  
 1 ea. Exit devices, Von Duprin, Type 6, Function 02 x finish to match doors x Electric latch retraction x Request to exit switch (See Section 01610)  
 2 ea. Closers, C05041 by door manufacturer x finish to match door

#### 2.1.5 Glazing

Glazing shall be as specified in Section 08810 GLASS AND GLAZING. Metal glazing beads, vinyl inserts, and glazing gaskets shall be provided for securing glass. Glass stops shall be tamperproof on exterior side.

### 2.1.6 Weatherstripping

Weatherstripping shall be continuous silicone-treated wool pile type, or a type recommended by the door manufacturer and shall be provided on head and jamb of exterior door frames. Weatherstripping for bottom of doors shall be as shown. Weatherstripping shall be easily replaced without special tools, and shall be adjustable at meeting stiles of pairs of doors. Air leakage rate of weatherstripping shall not exceed of crack when tested in accordance with ASTM E 283 at standard test conditions.

## 2.2 ALUMINUM FRAMES

Frames shall be double-glazed window wall system and shall have a minimum condensation resistance factor of 45 in accordance with AAMA 1503.1]. Frames shall be fabricated of extruded aluminum shapes to contours as shown on the drawings. Shapes shown are representations of design, function, and required profile. Dimensions shown are minimum. Shapes of equivalent design may be submitted, subject to approval of samples. Minimum metal wall thickness shall be except glazing beads, moldings, and trim shall be not less than Frames that are to receive glass shall have removable snap-on glass stops and glazing beads. Joints in frame members shall be milled to a hairline tight fit so that raw edges of the assembly are not visible, sealed internally to prevent water infiltration, reinforced, and secured mechanically by appropriate screws or by screw spline attachment.

### 2.2.1 Horizontal Safety Rails

Rails shall be of the same style, design, and finish as the doors and frames, and shall be mounted at the same height as push-pull bars and exit devices. Rails may be on either side of the glass. The exposed vertical face shall be not less than 1/2 inches wide.

## 2.3 ALUMINUM DOORS

Doors shall be not less than thick. Clearances at hinge stiles, lock stiles and top rails, floors and thresholds, shall comply with manufacturer's standard. Single-acting doors shall be beveled at lock and meeting stile edges. Double-acting doors shall have rounded edges at hinge stile, lock stile, and meeting stile edges.

### 2.3.1 Full-Glazed Stile and Rail Doors

Doors shall have medium stiles and rails as shown, and shall be fabricated from extruded aluminum hollow seamless tubes or from a combination of open-shaped members interlocked or welded together. Doors shall be double-glazed and shall have a minimum condensation resistance factor of 45 in accordance with AAMA 1503.1. Top and bottom rail shall be fastened together by means of welding or by diameter plated tensioned steel tie rods. Extruded aluminum snap-in glazing beads shall be provided on interior side of doors. Extruded aluminum theft-proof snap-in glazing beads or fixed glazing beads shall be provided on exterior or security side of doors. Glazing beads shall have vinyl insert glazing gaskets, designed to receive glass of thickness required. Glass is specified in Section 08810 GLASS AND GLAZING.

## 2.4 [Enter Appropriate Subpart Title Here]

## PART 3 EXECUTION

### 3.1 INSTALLATION OF DOORS, FRAMES WINDOW WALLS, AND ACCESSORIES

#### 3.1.1 Protection of Aluminum

Aluminum shall not be used where it will be in contact with copper or where it will contact water which flows over copper surfaces. Aluminum that will be in contact with wet or pressure-treated wood, mortar, concrete, masonry, or ferrous metals shall be protected against galvanic or corrosive action by one of the following methods.

##### 3.1.1.1 Paint

Aluminum surfaces to be protected shall be solvent cleaned and given a coat of zinc-molybdate primer and one coat of aluminum paint.

##### 3.1.1.2 Nonabsorptive Tape or Gasket

Nonabsorptive tape or gasket shall be placed between the adjoining surfaces and shall be cemented to the aluminum surface using a cement compatible with aluminum.

#### 3.1.2 Installation

Frames and framing members shall be accurately set in position to receive adjoining components. Frames shall be plumb, square, level, and in alignment, and securely anchored to adjacent construction. Metal-to-metal joints between framing members and joints between framing members and building surfaces shall be sealed as specified in Section 07900 JOINT SEALING. Doors shall be accurately hung with proper clearances, and adjusted to operate properly.

#### 3.1.3 Cleaning

Doors and frames shall be cleaned in accordance with the manufacturer's approved instructions.

-- End of Section --

SECTION 08353

ACCORDION PARTITIONS, FOLDING DOORS, AND OPERABLE PARTITIONS

05/95

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 84	(1996a) Surface Burning Characteristics of Building Materials
ASTM E 90	(1996) Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions
ASTM E 413	(1987; R 1994) Rating Sound Insulation
ASTM F 793	(1993) Standard Classification of Wallcovering by Durability Characteristics

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA LD 3	(1995) High-Pressure Decorative Laminates
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UNDERWRITERS LABORATORIES (UL)

UL 10B	(1997) Fire Tests of Door Assemblies
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1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Accordion Partitions; GA.

Manufacturer's descriptive data, performance charts, catalog cuts, and installation instructions.

SD-04 Drawings

. Accordion Partitions; GA.

Drawings containing complete schematic diagrams and details required to

demonstrate that the system has been coordinated and will properly function as a unit. Drawings shall show proposed layout and anchorage of equipment and appurtenances, and equipment relationship to other parts of the work including clearances for maintenance and operation.

#### SD-13 Certificates

Accordion Partitions; GA.

Certificate attesting that the materials meet the requirements specified and that partitions have specified acoustical and flame retardant properties, as determined by test.

#### SD-14 Samples

Accordion Partitions; GA.

Manufacturer's standard color samples of specified surfaces and finishes.

#### SD-19 Operation and Maintenance Manuals

Accordion Partitions; GA.

Six complete copies of operating instructions outlining the procedures required for electrically operated partitions. The instructions shall include the manufacturer's name, model number, service manual, parts list, and brief description of all equipment and operating features. Data shall include a complete list of parts and supplies, with current unit prices and source of supply, and a list of the parts recommended by the manufacturer to be replaced after 1 year of service.

Six complete copies of maintenance instructions explaining routine maintenance procedures including inspection, adjustments, lubrication, and cleaning. The instructions shall list possible breakdown, methods of repair, and a troubleshooting guide. The instructions shall include equipment layout and simplified wiring and control diagrams of the system as installed.

### 1.3 DELIVERY AND STORAGE

Materials shall be delivered to the jobsite in the manufacturer's original, unopened packages and shall be stored with protection from the weather, humidity and temperature variations, dirt and dust, or other contaminants.

### 1.4 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a 1 year period shall be provided.

## PART 2 PRODUCTS

Product shall be KWIK-WALL model 113 or an approved equal.

### 2.1 MATERIALS

Material and equipment shall be the standard products of a manufacturer regularly engaged in the manufacture of such products and shall essentially duplicate items that have been in satisfactory use for at least 2 years prior to bid opening. Equipment shall be supported by a service organization that is, in the opinion of the Contracting Officer, reasonably

convenient to the site. Door and partition finishes shall have a Class A rating when tested in accordance with ASTM E 84.

#### 2.1.1 Vinyl Covering

The vinyl coated fabric shall conform to ASTM F 793, Category V, Type II (Medium duty). Covering shall have textured design.

#### 2.1.2 [Enter Appropriate Subpart Title Here]

#### 2.1.3 Hardware

Accordion partitions shall be furnished with grip handles with latch only. An upper latch with extended pulls shall be provided on units over 2400 mm high. Hardware shall be anodized aluminum with a natural finish, chrome plated or brass plated metal, or painted finish.

#### 2.1.4 Sweep Strips

Sweep strips shall be vinyl or other material which will not crack or craze with severe usage. Sweep strip shall control STC to the specified rating.

#### 2.1.5 Track

Track shall be recessed and shall be of extruded aluminum or enamel finish steel. Track shall be manufacturer's standard product designed for the weight of door or partition furnished. Track sections shall be provided in the maximum lengths practicable, not less than 1800 mm long except for narrow doors and at ends of runs where short length is required. Suitable joint devices such as interlocking keys shall be provided at each joint to provide permanent alignment of track.

#### 2.1.6 Metal Soffit

Soffit shall be provided when steel track is recessed. Soffit shall be of metal of adequate thickness to protect the ceiling from damage by door operation and shall be provided with the door manufacturer's standard neutral-color applied finish. Soffit on aluminum track shall be an integral part of the track.

### 2.2 ACCORDION PARTITIONS

Accordion partitions shall consist of top hung ball bearing carriers which support a system of hinged folding panels with a durable surface finish. Partitions shall have perimeter and jamb seals which shall provide the indicated STC rating. Ferrous metal parts shall be either cadmium plated or zinc coated and post shall have manufacturer's standard shop finish paint. Doors shall be manually operated. Door widths shall be as shown.

#### 2.2.1 Pantograph Framework with Flexible Covering

Accordion partitions shall have a steel pantograph hinged framework and shall have a sound liner and shall meet the STC rating of 39 in accordance with ASTM E 90 and ASTM E 413. Intermediate pantographs shall be provided as required and door shall have a control device to prevent flattening of the folds when the panel is fully extended. The covering shall be vinyl.

#### 2.3 [Enter Appropriate Subpart Title Here]

2.4 [Enter Appropriate Subpart Title Here]

2.5 COLOR

Color shall be in accordance with Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

PART 3 EXECUTION

3.1 INSTALLATION

Installation shall be in accordance with the manufacturer's approved installation instructions.

-- End of Section --

SECTION 08700

BUILDERS' HARDWARE

03/96

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 283 (1991) Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

BHMA-01 (Effective thru Jun 1998) Directory of Certified Locks & Latches

BHMA-02 (Effective thru Jul 1997) Directory of Certified Door Closers

BHMA-03 (Effective thru Jul 1997) Directory of Certified Exit Devices

BHMA ANSI/BHMA A156.1 (1997) Butts and Hinges

BHMA ANSI/BHMA A156.3 (1994) Exit Devices

BHMA ANSI/BHMA A156.4 (1992) Door Controls - Closers

BHMA ANSI/BHMA A156.5 (1992) Auxiliary Locks & Associated Products

BHMA ANSI/BHMA A156.6 (1994) Architectural Door Trim

BHMA ANSI/BHMA A156.7 (1988) Template Hinge Dimensions

BHMA ANSI/BHMA A156.8 (1994) Door Controls - Overhead Stops and Holders

BHMA ANSI/BHMA A156.13 (1994) Mortise Locks & Latches

BHMA ANSI/BHMA A156.16 (1989) Auxiliary Hardware

BHMA ANSI/BHMA A156.18 (1993) Materials and Finishes

BHMA ANSI/BHMA A156.21 (1996) Thresholds

DOOR AND HARDWARE INSTITUTE (DHI)

DHI-03	(1989) Keying Systems and Nomenclature
DHI-04	(1976) Recommended Locations for Builders' Hardware for Custom Steel Doors and Frames
DHI 05	(1990) Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames
DHI-A115.1G	(1994) Installation Guide for Doors and Hardware
DHI A115-W	(Varies) Wood Door Hardware Standards (Incl A115-W1 thru A115-W9)

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80	(1995) Fire Doors and Fire Windows
NFPA 101	(1997; Errata 97-1) Life Safety Code
NFPA 105	(1993) Installation of Smoke-Control Door Assemblies

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Hardware and Accessories; FIO.

Manufacturer's descriptive data, technical literature, catalog cuts, and installation instructions. Spare parts data for locksets, exit devices, closers, electric locks, electric strikes, electro-magnetic closer holder release devices, and electric exit devices, after approval of the detail drawings, and not later than 3 month(s) prior to the date of beneficial occupancy. The data shall include a complete list of parts and supplies, with current unit prices and source of supply.

SD-04 Drawings

Hardware Devices; GA.

Detail drawings for hardware devices for computerized keying systems, magnetic cards, keyless push button access control systems, and other electrical hardware devices showing complete wiring and schematic diagrams and other details required to demonstrate proper function of units.

SD-07 Schedules

Hardware Schedule; FIO.

Hardware schedule listing all items to be furnished. The schedule shall

include for each item: the quantities; manufacturer's name and catalog numbers; the ANSI number specified, sizes; detail information or catalog cuts; finishes; door and frame size and materials; location and hardware set identification cross-references to drawings; corresponding reference standard type number or function number from manufacturer's catalog if not covered by ANSI or BHMA; and list of abbreviations and template numbers.

Keying Schedule; GA.

Keying schedule developed in accordance with DHI-03, after the keying meeting with the user.

#### SD-13 Certificates

Hardware and Accessories; FIO.

The hardware manufacturer's certificates of compliance stating that the supplied material or hardware item meets specified requirements. Each certificate shall be signed by an official authorized to certify in behalf of the product manufacturer and shall identify quantity and date or dates of shipment or delivery to which the certificates apply. A statement that the proposed hardware items appear in BHMA-01, BHMA-02 and BHMA-03 directories of certified products may be submitted in lieu of certificates.

### 1.3 PREDELIVERY CONFERENCE

Upon approval of the Hardware Schedule, the construction Contractor shall arrange a conference with the hardware supplier, Contracting Officer and the using agency to determine keying system requirements. Location of the key control storage system, set-up and key identification labeling will also be determined.

### 1.4 DELIVERY, STORAGE, AND HANDLING

Hardware shall be delivered to the project site in the manufacturer's original packages. Each article of hardware shall be individually packaged in the manufacturer's standard commercial carton or container, and shall be properly marked or labeled to be readily identifiable with the approved hardware schedule. Each change key shall be tagged or otherwise identified with the door for which its cylinder is intended. Where double cylinder functions are used or where it is not obvious which is the key side of a door, appropriate instructions shall be included with the lock and on the hardware schedule. Manufacturer's printed installation instructions, fasteners, and special tools shall be included in each package.

### 1.5 SPECIAL TOOLS

Special tools, such as those supplied by the manufacturer, unique wrenches, and dogging keys, shall be provided as required to adjust hardware items.

### 1.6 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a one year period shall be provided.

### 1.7 OPERATION AND MAINTENANCE MANUALS

Six complete copies of maintenance instructions listing routine maintenance procedures, possible breakdowns and repairs, and troubleshooting guides

shall be provided. The instructions for electric locks, electric strikes, electro-magnetic closer holder release devices, and electric exit devices shall include simplified diagrams as installed.

## PART 2 PRODUCTS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

### 2.1 GENERAL HARDWARE REQUIREMENTS

Hardware shall conform to the requirements specified herein and the HARDWARE SETS listing at the end of this section. Hardware set numbers correspond to the set numbers shown on the drawings.

### 2.2 TEMPLATES

Requirements for hardware to be mounted on metal doors or metal frames shall be coordinated between hardware manufacturer and door or frame manufacturer by use of templates and other information to establish location, reinforcement required, size of holes, and similar details. Templates of hinges shall conform to BHMA ANSI/BHMA A156.7.

### 2.3 HINGES

Hinges shall conform to BHMA ANSI/BHMA A156.1. Hinges used on metal doors and frames shall also conform to BHMA ANSI/BHMA A156.7. Except as otherwise specified, hinge sizes shall conform to the hinge manufacturer's printed recommendations.

#### 2.3.1 Hinges for Reverse Bevel Doors with Locks

Hinges for reverse bevel doors with locks shall have pins that are made nonremovable by means such as a set screw in the barrel, or safety stud, when the door is in the closed position.

#### 2.3.2 Contractor's Option

Hinges with antifriction bearings may be furnished in lieu of ball bearing hinges, except where prohibited for fire doors by the requirements of NFPA 80.

#### 2.3.3 Pivot Hinges

Pivot hinges shall conform to BHMA ANSI/BHMA A156.4.

#### 2.3.4 [Enter Appropriate Subpart Title Here]

#### 2.3.5 [Enter Appropriate Subpart Title Here]

### 2.4 LOCKS AND LATCHES

The locksets, latchsets and deadlocks, and all components thereof, including cylinders and removable cores, shall be the products of Best Locks are installed in the existing building, and the locksets and keying shall match those in the existing building.. Lock fronts for double-acting doors shall be rounded. Strikes for wood frames and pairs of wood doors shall be furnished with wrought boxes.

#### 2.4.1 Mortise Lock and Latchsets

Mortise lock, latchsets, and strikes shall be series 1000 and shall conform to BHMA ANSI/BHMA A156.13, operational Grade 1. Strikes for security doors shall be rectangular without curved lip. Mortise type locks and latches for doors 44 mm thick and over shall have adjustable bevel fronts or otherwise conform to the shape of the door. Mortise locks shall have armored fronts.

#### 2.4.2 Auxiliary Locks and Associated Products

Bored and mortise dead locks and dead latches, narrow style dead locks and dead latches, rim latches, dead latches, and dead bolts, shall conform to BHMA ANSI/BHMA A156.5. Bolt and latch retraction shall be dead bolt style.

Strike boxes shall be furnished with dead bolt and latch strikes for Grade 1.

#### 2.4.3 Lock Cylinders (Mortise, and Rim )

Lock cylinders shall comply with BHMA ANSI/BHMA A156.5. Lock cylinder shall have not less than seven pins. Cylinders shall have key removable type cores. A master keying system shall be provided. An extension of the existing keying system shall be provided. The lock cylinders shall be compatible with existing locks. Construction interchangeable cores shall be provided. Disassembly of knob or lockset shall not be required to remove core from lockset. All locksets, and lockable exit devices, shall accept same interchangeable cores.

#### 2.4.4 Lock Trim

Lock trim shall be cast, forged, or heavy wrought construction of commercial plain design. In addition to meeting the test requirement of or BHMA ANSI/BHMA A156.13, lever handles, and escutcheons shall be 1.27 mm thick, if unreinforced. If reinforced, the outer shell shall be 0.89 mm thick and the combined thickness shall be 1.78 mm. Lever handles shall be of plain design with ends returned to no more than 10 mm from the door face. Lever handle shall be of solid construction.

### 2.5 EXIT DEVICES AND EXIT DEVICE ACCESSORIES

Exit devices and exit device accessories shall be Von Duprin (see Section 01610 PROPRIETARY PRODUCTS) and conform to BHMA ANSI/BHMA A156.3, Grade 1.

#### 2.5.1 Exit Devices and Auxiliary Items

Trim shall be of wrought construction and commercial plain design with straight, beveled, or smoothly rounded sides, corners, and edges. Adjustable strikes shall be provided for rim type and vertical rod devices. Open back strikes shall be provided for pairs of doors with mortise and vertical rod devices; except open back strikes shall be used on labeled doors only where specifically provided for in the published listings. Touch bars shall be provided in lieu of conventional crossbars and arms. Escutcheons shall be provided not less than 175 by 55 mm. Escutcheons shall be cut to suit cylinders and operating trim.

#### 2.5.2 Electric Exit Devices

Electric exit devices shall be Von Duprin (see 01610 PROPRIETARY PRODUCTS)

and conform to BHMA ANSI/BHMA A156.3 with factory installed electric lock modification having the capability to lock or unlock from remote location by means of push button. Exit devices shall comply with life safety requirements of NFPA 101. In hazardous locations, products shall use safe power supplies or be pneumatic.

## 2.6 KEYING

Locks shall be keyed in sets or subsets as scheduled. Locks shall be furnished with the manufacturer's standard construction key system. Change keys for locks shall be stamped with change number and the inscription "U.S. Property - Do Not Duplicate." Keys shall be supplied as follows:

Locks:	5 change keys each lock.
Master keyed sets:	4 keys each set.

Construction keys:	6 total.
Blank keys:	150 total.

The keys shall be furnished to the Contracting Officer arranged in a container for key control system storage in sets or subsets as scheduled.

## 2.7 DOOR CLOSING DEVICES

Door closing devices shall conform to BHMA ANSI/BHMA A156.4, Grade 1. Closing devices shall be products of one manufacturer for each type specified. The opening resistance of closing devices shall not exceed 67 N applied at the latch stile or exceed 22 N where low opening resistance is scheduled.

### 2.7.1 Surface Type Closers

Surface type closers shall be Von Duprin (see Section 01610 PROPRIETARY PRODUCTS Grade 1, Series C02000 Full Cover with options PT-4F and PT-4H, Size 1 or 2 through Size 6, and PT-4D with back check position valve. Except as otherwise specified, sizes shall conform to the manufacturer's published recommendations. Closers for outswinging exterior doors shall have parallel arms or shall be top jamb mounted. Closers for doors close to a wall shall be of narrow projection so as not to strike the wall at the 90-degree open position.

## 2.8 DOOR CONTROLS - OVERHEAD HOLDERS

Door controls - overhead holders shall conform to BHMA ANSI/BHMA A156.8.

## 2.9 ARCHITECTURAL DOOR TRIM

Architectural door trim shall conform to BHMA ANSI/BHMA A156.6.

### 2.9.1 Door Protection Plates

#### 2.9.1.1 Armor Plates

Armor plates shall be Type J101 stainless steel, 900 mm in height, and 50 mm less in width than the width of the door for single doors and 25 mm

less for pairs of doors. Edges of metal plates shall be beveled. Where the door has a louver panel, the armor plate shall be omitted if top of louver frame is more than 500 mm above the bottom of the door.

#### 2.9.1.2 Kick Plates

Kick plates shall be Type J102 stainless steel. Width of plates shall be 50 mm less than door width for single doors and 25 mm less for pairs of doors. Height shall be [250] [300] [400] mm, except where the bottom rail is less than [250] [300] [400] mm the plate shall extend to within 13 mm of the panel mold or glass bead. Edges of metal plates shall be beveled.

#### 2.9.1.3 Mop Plates

Mop plates shall be Type J103 stainless steel. Width of plates shall be 50 mm less than door width for single doors and 25 mm less for pairs of doors. The height shall be 100 mm. Edges of metal plates shall be beveled.

#### 2.9.2 Push Plates

##### 2.9.2.1 Flat Plates

Flat plates shall be Type J304 1.27 mm thick stainless steel, size 4" x 16". Edges of metal plates shall be beveled.

#### 2.9.3 Door Pulls and Push/Pull Units

2.9.3.1 [Enter Appropriate Subpart Title Here]

2.9.3.2 [Enter Appropriate Subpart Title Here]

##### 2.9.3.3 Door Pulls

Door pull plates shall be Category J407 stainless steel of plain modern design. Pulls for hollow metal, mineral core wood or kalamein doors shall be Type J407 thru-bolted to Type J304 flat push plates.

2.9.4 [Enter Appropriate Subpart Title Here]

#### 2.10 AUXILIARY HARDWARE

Auxiliary hardware, consisting of flushbolts, door holders, door stops, shall conform to BHMA ANSI/BHMA A156.16. Lever extension flush bolts shall be Type L14081. Dust-proof strikes shall be Type L04011 for doors that are not fire rated. Dust-proof strikes shall be Type L04021 for fire rated doors. Other auxiliary hardware of the types listed below, shall conform to BHMA ANSI/BHMA A156.16.

Garment Hooks: L12131

#### 2.11 MISCELLANEOUS

### 2.11.1 Automatic Door Bottoms

Automatic door bottoms shall be surface type with aluminum housing cover, anodized clear finish. Door bottom shall have a wool, felt, rubber, vinyl, or neoprene seal and shall be actuated by the opening and closing of the door. The door bottom shall exclude light when the door is in the closed position and shall inhibit the flow of air through the unit.

### 2.11.2 Metal Thresholds

Thresholds shall conform to BHMA ANSI/BHMA A156.21. Thresholds for exterior doors shall be extruded aluminum of the type indicated and shall provide proper clearance and an effective seal with specified weather stripping. Where required, thresholds shall be modified to receive projecting bolts of flush bolts exit devices. All doors are accessible to the handicapped and shall be beveled with slopes not exceeding 1:2 and with heights not exceeding 13 mm. Air leakage rate of weatherstripping shall not exceed 0.775 liters per second per lineal meter of crack when tested in accordance with ASTM E 283 at standard test conditions.

### 2.11.3 Rain Drips

Extruded aluminum, not less than 1.78 mm thick, clear anodized. Door sill rain drips shall be 38 mm to 44 mm high by 16 mm projection. Overhead rain drips shall be approximately 38 mm high by 63 mm projection and shall extend 50 mm on either side of the door opening width.

### 2.11.4 Aluminum Housed Type Weatherseal

Weatherseal of the type indicated shall consist of extruded aluminum retainers not less than 1.78 mm wall thickness with vinyl, neoprene, silicone rubber, polyurethane or vinyl brush inserts. Aluminum shall be clear (natural) anodized. Weatherseal material shall be of an industrial/commercial grade. Seals shall remain functional through all weather and temperature conditions. Air leakage rate of weatherstripping shall not exceed 0.775 liters per second per lineal meter of crack when tested in accordance with ASTM E 283 at standard test conditions.

### 2.11.5 Key Control Storage System

Key control storage system shall conform to BHMA ANSI/BHMA A156.5, Type E8351, capacity as required, and shall be properly labeled for key identification. Set up, identification labeling and location of the key control storage shall be as directed at the Predelivery Conference.

### 2.11.6 Door Stops

Door stops and combination stop and holders shall conform to BHMA ANSI/BHMA A156.16.

## 2.12 FASTENINGS

Fastenings of proper type, size, quantity, and finish shall be supplied with each article of hardware. Machine screws and expansion shields shall be used for attaching hardware to concrete or masonry. Fastenings exposed to the weather in the finished work shall be of brass, bronze, or stainless steel. Sex bolts, through bolts, or machine screws and grommet nuts, where used on reverse-bevel exterior doors equipped with half-surface or

full-surface hinges, shall employ one-way screws or other approved tamperproof screws. Screws for the jamb leaf of half-mortise and full-surface hinges attached to structural steel frames shall be one-way or other approved tamperproof type.

### 2.13 FINISHES

Unless otherwise specified, finishes shall conform to those identified in BHMA ANSI/BHMA A156.18. Where painting of primed surfaces is required, painting is specified in Section 09900 PAINTING, GENERAL.

### 2.14 HARDWARE FOR FIRE DOORS

Hardware for fire doors shall conform to the requirements of NFPA 80 and NFPA 101.

## PART 3 EXECUTION

### 3.1 APPLICATION

Hardware shall be located in accordance with DHI-04 and DHI 05, except that deadlocks shall be mounted 1220 mm above finish floor. When approved, slight variations in locations or dimensions will be permitted. Application shall be in accordance with DHI-A115.1G or DHI A115-W. Door control devices for exterior doors such as closers and holders, shall be attached to doors with thru bolts and nuts or sex bolts. Alternate fastening methods may be approved by the Contracting Officer when manufacturers' documentation is submitted to verify that the fastening devices and door reinforcements are adequate to resist wind induced stresses. Electric hardware items and access control devices shall be installed in accordance with manufacturer's printed installation procedures.

#### 3.1.1 Hardware for Fire Doors and Smoke-Control Door Assemblies

Hardware for fire doors shall be installed in accordance with the requirements of NFPA 80. Exit devices installed on fire doors shall have a visible label bearing the marking "Fire Exit Hardware". Other hardware installed on fire doors, such as locksets, closers, and hinges shall have a visible label or stamp indicating that the hardware items have been approved by an approved testing agency for installation on fire-rated doors. Hardware for smoke-control door assemblies shall be installed in accordance with NFPA 105.

#### 3.1.2 Door-Closing Devices

Door-closing devices shall be installed and adjusted in accordance with the templates and printed instructions supplied by the manufacturer of the devices. Insofar as practicable, doors opening to or from halls and corridors shall have the closer mounted on the room side of the door.

#### 3.1.3 Key Control Storage Systems

Key control storage system shall be furnished to the Contracting Officer.

#### 3.1.4 Kick Plates and Mop Plates

Kick plates shall be installed on the push side of single-acting doors and on both sides of double-acting doors. Mop plates shall be installed on the pull side of the single acting doors.

### 3.1.5 Auxiliary Hardware

Lever extension flush bolts shall be installed at the top and bottom of the inactive leaf of pairs of doors. The bottom bolt shall operate into a dust-proof floor strike or threshold.

### 3.1.6 Thresholds

Thresholds shall be secured with a minimum of three fasteners per single door width and six fasteners per double door width with a maximum spacing of 300 mm. Exterior thresholds shall be installed in a bed of sealant with expansion anchors and stainless steel screws, except that bronze or anodized bronze thresholds shall be installed with expansion anchors with brass screws. Minimum screw size shall be No. 10 length, dependent on job conditions, with a minimum of 19 mm thread engagement into the floor or anchoring device used.

### 3.1.7 Rain Drips

Door sill rain drips shall align with the bottom edge of the door. Overhead rain drips shall align with bottom edge of door frame rabbet. Drips shall be set in sealant and fastened with stainless steel screws.

### 3.1.8 Weatherseal

Weatherseal shall be located as indicated, snug to door face and fastened in place with color matched metal screws after door and frames have been finish painted. Screw spacing shall be as recommended by manufacturer.

## 3.2 OPERATIONAL TESTS

Prior to acceptance of any electrical hardware system, an operational test shall be performed to determine if devices are operating as intended by the specifications. Wiring shall be tested for correct voltage, current carrying capacity, and proper grounding. Stray voltages in lock wiring shall be eliminated to prevent locking devices from releasing in critical situations.

## 3.3 FIELD QUALITY CONTROL

Supplier shall inspect the completed installation and certify that the hardware has been furnished and installed in accordance with the manufacturers instructions and as specified. The inspection report shall identify any malfunctioning items and recommend adjustment or replacement as appropriate.

## 3.4 HARDWARE SETS

HW-1	Door No. 1, 3, 5
2 ea.	Power transfers, Von Duprin EPT-10
1 ea.	Monitor strike, Von Duprin 4690-1-T2
1 ea.	Power supply, Von Duprin PS872 X 600
1 set	Weatherstripping, @ head, jambs and meeting stile

2 ea. Overhead stop, C01541 x finish to match door  
 1 ea. Threshold, J32180 as detailed x 628  
 1 ea. Door sweep, R3D515 X 628  
 Other Hardware specified in Section 08120 ALUMINUM DOORS AND FRAMES.

HW-2 Door No. 7

1 set Weatherstripping, at head, and jambs  
 2 ea. Overhead stop, C01541 x finish to match door  
 1 ea. Threshold, J32180 as detailed x 628  
 1 ea. Door sweep, R3D515 X 628  
 1 ea. Monitor strike, Von Duprin 4690-1-T2  
 Other Hardware specified in Section 08120 ALUMINUM DOORS AND FRAMES.

HW-3 Door No. 2, 4, 6,

2 sets Pivots, C07131 by door manufacturer x finish to match door  
 2 ea. Push bars, by door manufacturer x finish to match doors  
 2 ea. Pull bar, by door manufacturer x factory finish to match doors.  
 2 ea. Closers, C05041 by door manufacturer x finish to match door,  
 "Low  
 Opening Resistance"  
 2 ea. Overhead stop, C01541 x finish to match door

HW-4 Door No. 9

1 ½ pr. Hinges, A2112 x 626  
 1 ea. Lockset, (BEST Access Systems), F07 x 626  
 1 ea. Overhead stop, C02511 x 626  
 1 set Weatherstripping, @ head and jambs  
 1 set Rain drip, at head and door bottom x 628  
 1 ea. Threshold, J32180 as detailed x 628  
 1 ea. Automatic door bottom ROD315 x 673

HW-5 Door No. 10

1 ½ pr. Hinges, A2112 x 626  
 1 ea. Exit device, Von Duprin, Type 8 Function 01 x 689  
 1 ea. Closer, C02021 x 689  
 1 ea. Overhead stop, C02511 x 626  
 1 set Weatherstripping, @ head and jambs  
 1 set Rain drip, at head and door bottom x 628  
 1 ea. Threshold, J32180 as detailed x 628  
 1 ea. Automatic door bottom ROD315 x 673  
 1 ea. Kickplate, J102 x 630  
 1 ea. Monitor strike, Von Duprin 4690-1-T2

HW-6 Door No. 11, 28, 29, 30,

Hardware by door manufacturer

HW-7 Door No. 12

4 pr. Hinges, A2112 x 626  
 1 ea. Lockset, (BEST Access Systems), F07 x 626  
 1 ea. Overhead stop, C02511 x 626  
 1 set Weatherstripping, @ head jambs and meeting stiles  
 1 set Rain drip, head and door bottom x 628

1 ea. Threshold, J32180 as detailed x 628  
1 ea. Automatic door bottom ROD315 x 673  
2 ea. Flushbolts, L04081 x 626  
1 ea. Dust Proof Strikes, L04021 x 626

HW-8 Door No. 13 -  
Not used

HW-9 Door No. 14 -  
Not used

HW-10 Door No. 15, 16

1 ½ pr. Hinges, A5111 x 630  
1 ea. Push plate, J301 x 630  
1 ea. Pull plate, J405 x 630  
1 ea. Closer, C02021 x 689  
1 ea. Kickplate, J102 x 630  
1 ea. Stop, L22141 x 626

HW-11 Door No. 17

1 ½ Hinge, A2112 x 626  
1 ea. Lockset, (BEST Access Systems), F07 x 626  
1 ea. Closer, C02021 x 689  
1 ea. Mop Plate, J103 X 630  
1 ea. Kickplate, J102 x 630  
1 ea. Stop, L22141 x 626

HW-12 Door No. 18, 21, 22

1 ½ Hinge, A2112 x 626  
1 ea. Lockset, (BEST Access Systems), F07 x 626  
1 ea. Closer, C02011 x 689  
1 ea. Kickplate, J102 x 630  
1 ea. Stop, L22141 x 626

HW-13 Doors No. 19

1 ½ pr. Hinges, A5111 x 630  
1 ea. Lockset, (BEST Access Systems), F02 x 626  
1 ea. Overhead holder, C02511 x 626  
1 ea. Garment hook, L12131 x 626

HW-14 Door No. 20

2 ea. Power transfers, Von Duprin EPT-10  
1 ea. Monitor strike, Von Duprin 4690-1-T2  
1 ea. Power supply, Von Duprin PS872 x 600  
1 ea. Cylinder (BEST Access System) as required  
2 ea. Overhead stop, C01541 x finish to match door  
Other Hardware specified in Section 08120 ALUMINUM DOORS AND FRAMES.

HW-14A Door No. 20A

3 pr. Pivots, C07121 by door manufacturer x finish to match door  
1 ea. Pull plate, J407 X 630  
1 EA. Flat plate J304 X 630  
2 ea. Closers, C05041 by door manufacturer x finish to match door

2 ea. Overhead stop, C02541 x 626

HW-15 Door No. 23, 26, 27

1 ½ pr. Hinges, A2112 x 626

1 ea. Lockset, (BEST Access Systems), F05 x 626

1 ea. Overhead holder, C02511 x 626

1 ea. Closer, C02021 x 689

1 ea. Kickplate, J102 x 630

HW-16 Door No. 24 (Fire Rated)

3 pr. Hinges, A5111 x 630

2 ea. Exit devices, Type 2, Function 08 x 626

2 ea. Closers, C02021, PT-4G x 689

1 ea. Kickplate, J102 x 630

2 ea. Overhead stop, C02541 x 626

HW-17 Door No. 24A

3 pr. Hinges, A8111 x 626

2 ea. Exit devices, Type 2 Function 02 x electric latch retraction x 626

2 ea. Power transfers, Von Duprin EPT10

2 ea. Monitor strike, Von Duprin 4690-1-T2

1 ea. Power supply, equal to Von Duprin PS872 X 600

2 ea. Closers, C02021 x 689

1 ea. Kickplate, J102 x 630

2 ea. Overhead stop, C02541 x 626

HW-18 Door No. 24B

3 pr. Hinges, A8111 x 626

2 ea. Exit devices, Type 2, Function 08 x 626

2 ea. Closers, C02021 x 689

1 ea. Kickplate, J102 x 630

2 ea. Overhead stop, C02541 x 626

HW-19 Door No. 25 - (Fire Rated)

1 ½ pr. Hinges, A5111 x 630

1 ea. Lockset, (BEST Access Systems), F04 x 626

1 ea. Closer, C02021, PT-4G x 689

1 ea. Overhead stop, C02541 x 626

1 ea. Kickplate, J102 x 630

HW-20 Door No. 31(Fire Door)

3 pr. Hinges, A5111 x 630

2 ea. Closers, C02011, PT-4G x 689

1 ea. Lockset, (BEST Access Systems), F04 x 630

2 ea. Automatic flushbolts, Type 25 x 626

1 ea. Coordinator, Type 21A x 689

2 ea. Overhead stop, C02541 x 626

2 ea. Kickplates, J102 x 630

1 ea. Dust proof strike, L04021 x 626

HW-21 Door No. 32

3 pr. Hinges, A2112 x 626  
1 ea. Lockset, (BEST Access Systems),F01 626  
2 ea. Flushbolts, L04081 x 626  
1 ea. Dust proof strike, L04021 x 626

## HW-22 Door No. 33 (Fire Door)

1 ½ pr. Hinges, A5111 x 630  
1 ea. Exit device Type 8 Function 01 x 630  
1 ea. Closer, C02021 x 689  
1 ea. Overhead holder, C02511 x 626  
1 ea. Kickplate, J102 x 630

## HW-23 Door No. 35, 36, 37

1 ½ pr. Hinges, A2112 x 626  
1 ea. Lockset, (BEST Access Systems),F04 x 626  
1 ea. Closer, C02021 x 689  
1 ea. Overhead holder, C02511 x 626  
1 ea. Kickplate, J102 x 630  
1 ea. Sound Seal System (including a minimum 53 STC sound rated door,  
weatherstripping ,head and jambs, door bottom,  
and threshold)

## HW-24 Door No. 34

3 pr. Hinges, A2112 x 626  
1 ea. Lockset, (BEST Access Systems),F07 626  
2 ea. Flushbolts, L04081 x 626  
1 ea. Dust proof strike, L04021 x 626  
1 ea. Overhead holder, C02511 x 626  
1 ea. Threshold, J32180 as detailed x 628  
1 ea. Sound Seal System (including a minimum 53 STC sound rated door,  
weatherstripping ,head and jambs, door bottom,  
and threshold)

## HW-25 Door No. 38

2 prs. Hinges, A2112 x 626  
1 ea. Lockset, (BEST Access Systems),F04 x 626  
1 ea. Closer, C02021 x 689  
1 ea. Overhead holder, C02511 x 626  
1 ea. Kickplate, J102 x 630  
1 ea. Sound Seal System (including a minimum 53 STC sound rated door,  
weatherstripping ,head and jambs, door bottom,  
and threshold)

-- End of Section --

SECTION 09000

**12/95**  
 BUILDING COLOR AND FINISH SCHEDULE  
**12/95**  
**AMENDMENT NO. 0002**

PART 1 GENERAL

1.1 SUMMARY

This section covers colors, patterns, and textures of exterior and interior floor, wall, ceiling, and equipment finish materials.

1.2 REFERENCES TO MANUFACTURERS AND PRODUCTS

The manufacturer's names and their products referenced in this section only indicate the color, texture, and pattern required for the materials listed. The products furnished shall meet the color, texture, and pattern indicated as well as the material quality and performance specified in the applicable technical sections. The use of manufacturer's names and products do not preclude the use of other manufacturer's products of approved equal color, texture, or pattern as long as all requirements are met.

1.3 ABBREVIATIONS: MANUFACTURERS AND MATERIALS

<u>Abbreviation</u>	<u>Material</u>	<u>Manufacturer</u>	<u>Mfgr's No/Color</u>
AF-1	Access Flooring Laminated	InterfaceAR	Tec-Crete II Nevamar MR-6-1 Gray Matrix
AF-2	Access Flooring CPT-1 to be installed over floor panels in a parquet pattern	InterfaceAR	Tec-Crete I
ATC-1	Acoustical Ceiling	Capaul	White, Symphony F/Overtone, Revealed Painted Edge with Foil Back, 24" x 24"
 <u><b>AM#0002</b></u>			
AP-1	Acoustical Panel	USG	Silent Wall Standard Panel: Fabric; <u><b>Guilford</b></u> <u><b>Muse 3552</b></u> <u><b>010 Keats</b></u>
 <u><b>AM#0002</b></u>			
AP-2	Acoustical Panel	USG	Silent Wall Standard Panel: Fabric; <u><b>Maharam</b></u> <u><b>Tek-Wall Lustra</b></u>

**040 Quick Silver**

AP-3	Acoustical Panel	USG	Silent Wall Standard Panel: Fabric;
Brick	Brick	Acme Brick	Rosewood, Blend 148, Velour Modular
Brick Mortar	-	SGS	J512;White Portland Cement, Tan Sand
CPT-1	Carpet	Interface	Notes; Style 3662 Color; Mare 3750
CPT-2	Carpet	Interface	Notes; Style 3662 Color; Trinidad 3760
CPT-3	Carpet	Interface	Notes; Style 3662 Color; Red Cabbage 3725
CPT-4	Carpet	Interface	Notes; Style 3662 Color; White Chocolate 3746
CPT-5	Carpet to be installed in a parquet pattern (1/4 turn)	Interface	Safari, Base Style 4114, 2012 Explore, 19.69" x 19.69" Modular Tile
<b><u>AM#0002</u></b>			
Cast Stone	-	<b><u>Pyramid Stone Co.</u></b>	<b><u>Shall match Phase 1</u></b>
CT-1	Ceramic Tile	Dal-tile	Matte Suede Gray 6540, 2"x2"
CT-2	Ceramic Tile	Dal-tile	Gloss Ash Gray 6444, 2"x2"
CT-3	Ceramic Tile	Dal-tile	Matte Blue Moon 6548, 2"x2"
CT-4	Ceramic Tile	Dal-tile	Matte Spice 6536, 2"x2"
CT-5	Ceramic Tile	Dal-tile	Unglazed Violet DK368, 2"x2"
CT-6	Ceramic Tile	Dal-Tile	Unglazed Old Rose DK308, 2"x2"

CT-7 Ceramic Tile Dal-Tile Square Top Base  
 Matte Suede Gray  
 6540, 2"x2"

Corner Guards - Koroseal K-15, Cloud

**AM#0002**

**Expansion Joints**

**Architectural  
 Art Mfg., Inc.**

**#21, Stainless  
 Steel**

EFS Exterior Finish System USG Sunlite,  
 Sand Texture

FP-1 Folding Partition Kwik-Wall Model 113;  
 Smoke, Standard Vinyl

**AM#0002**

GRT-1 Grout **Mapei** **19, Pearl Grey**

Glass Block Acme Brick Solaris Trimline  
 Flemish Sandblasted

P-1 Paint Polomyx 404-BH12

P-2 Paint Zolatone 43-24119

P-3 Paint Sherwin Williams Ermine SW 1023

P-4 Paint Sherwin Williams Origami White  
 1025

P-5 Paint Sherwin Williams Fencepost White  
 2074

P-6 Paint Sherwin Williams Steeplegray  
 2131

**AM#0002**

PL-1 Plastic Laminate Wilsonart **D91-60  
 Slate Grey**

PL-2 Plastic Laminate Wilsonart 6296(419)  
 Alumasteel

**AM#0002**

PL-3 Plastic Laminate Wilsonart **10868-60  
 Antique Wood**

**AM#0002**

PL-4 Plastic Laminate Wilsonart **7040A-60  
 Figured Mahogany**

PL-5 Plastic Laminate Wilsonart 6296 (419)  
 Satin Brushed Black Aluminum

**AM#0002**

**Presentation Cabinets**

**Dreher Business  
 Products**

**Series 1500  
 Mahogany**

QT-1	Quarry Tile	Dal-tile	Northwest 2000 Tacoma-NW50 Matte, 8"x8"
QT-2	Quarry Tile	Dal-tile	Northwest 2000 Glacier-NW85 Matte, 4"x8"
QT-3	Quarry Tile	Dal-tile	Northwest 2000 Kodiak-NW15 Matte, 4"x8"
QT-4	Quarry Tile	Dal-tile	Northwest 2000 Kodiak-NW15 Matte, 4"x4"
QT-5	Quarry Tile	Dal-tile	Northwest 2000 Glacier-NW85 Matte, 4"x4"
QT-6	Quarry Tile	Dal-tile	Northwest 2000 Cove Base Round
Recessed Mat	-	C/S Group	Recessed Pedimat Carpet threads 9321 Pewter; Rail / Frame Architectural Bronze
RB-1	Resilient Base	Johnsonite	Rubber, Straight 4" x 1/8" 71 Storm Cloud
<b><u>AM#0002</u></b>			
Standing Seam Metal Roof		<b><u>Berridge</u></b> <b><u>Manufacturing</u></b>	<b><u>Kynar 500</u></b> <b><u>Colonial Red</u></b>
Solid Surfacing		Wilsonart	SSV-3mm 1500N-MG Grey Mirage
VCT-1	Vinyl Comp.	Tarkett	Expressions 2014, White Steel Dawn
VWC-1	Vinyl Wallcovering	Korseal	Viewpoint, Indian Pottery V222-55
<b><u>AM#0002</u></b>			
VWC-2	Vinyl Wallcovering	<b><u>Korseal</u></b>	<b><u>Chimayo</u></b> <b><u>Tewa C521-97</u></b>
<b><u>AM#0002</u></b>			
<b><u>WC-1</u></b>	<b><u>Wallcovering/Fabric</u></b>	<b><u>Maharam</u></b>	<b><u>Tek-Wall</u></b> <b><u>Valley 305403</u></b> <b><u>004 Jute</u></b>
<b><u>AM#0002</u></b>			

<u>WC-2</u>	<u>Wallcovering/Fabric</u>	<u>Maharam</u>	<u>Tek-Wall</u> <u>Prairie 305401</u> <u>002 Tumbleweed</u>
<u>AM#0002</u>			
<u>WC-3</u>	<u>Wallcovering/Fabric</u>	<u>Maharam</u>	<u>Tek-Wall</u> <u>Horizon 305404</u> <u>003 Hopsack</u>
<u>AM#0002</u>			
<u>WC-4</u>	<u>Wallcovering/Fabric</u>	<u>Maharam</u>	<u>Tek-Wall</u> <u>Silkbrush 304701</u> <u>005 Pelican</u>
Window Shades	-	Mecho Shade Systems	ThermoVeil Shadecloth Vertical Weave 1003 Grey

1.4 [Enter Appropriate Subpart Title Here]1.3.1 MANUFACTURERS TELEPHONE NUMBERS

MATERIAL	CONTACT	DESCRIPTION
Access Flooring	InterfaceAR 1-800-336-0225	Tec-CreteI Tec-Crete II
Acoustical Ceiling	Designed Performance Mark McLain 972-381-9100	Capaul Symphony
<u>AM#0002</u> <u>Acoustical Panel</u>	<u>USG</u> <u>972-835-0028</u>	<u>Silent Wall</u>
Brick/Brick Mortar	Acme Brick Larry Clemons 817-390-2409	Rosewood Modular Med. Buff M515
Carpet	Interface Steve Savage 800-336-0225 ext 1506	Safari/Explore Notes/Rusty Nail Trinidad
<u>AM#0002</u> Cast Stone	<u>Pyramid Stone</u> <u>210-533-3511</u>	<u>To Match Phase I</u>
Ceramic Tile	Dal-tile Donna Kohler 972-690-5724	Keystones
Corner Guards	Kenmark Terry Grimes 800-788-8263	Koroseal Cloud/K-15
<u>AM#0002</u> <u>Expansion Joints</u>	<u>Architectural</u> <u>Art Mfg., Inc.</u>	<u>#21, Stainless</u> <u>Steel</u>

**800-835-0028**

**AM#0002**

Exterior Finish  
 System (EFS)

**To Match**  
**Phase I**

Folding Partition

Kwik-Wall  
 A.J. Noecker  
 817-831-0337

Vinyl/Smoke

**AM#0002**

**Glass Block**

**IBP/Acme Brick**  
**Joel Garcia**  
**817-820-2530**

**Solaris Flemish**  
**Sandblasted**

**AM#0002**

**Grout**

**Dal-tile**  
**Donna Kohler**  
**972-690-5724**

**Mapei**  
**19,Pearl Grey**

Paint

Kenmark  
 Terry Grimes  
 800-788-8263

Polomyx  
 Zolatone

Sherwin Williams  
 800-382-6567

All other  
 paint

Plastic Laminate

Wilsonart  
 Teresa Davison  
 800-344-2339

All laminate

Presentation Cabinet

Dreher Business  
 Products  
 800-221-4686

Series 1500  
 Mahogany

Quarry Tile

Dal-tile  
 Donna Kohler  
 972-690-5724

All tile

Recessed Mat

C/S Group  
 800-972-7214

Pedimat

Resilient Base

Johnsonite  
 800-899-8916  
 System 2/90  
 616-949-4310

Rubber/Storm

Signage

Interior  
 Signage

**AM#0002**

Standing Seam Roof

**Berridge**  
**Manufacturing**  
**800-231-8127**

**Kynar 500**  
**Colonial Red**

Toilet Partition

Santana  
 800-368-5002

Onyx/733

TV Mount

Bretford  
 800-343-1779

Vinyl Wallcovering	Kenmark Terry Grimes 800-788-8263	All Vinyl
<b><u>AM#0002</u></b> <b><u>Wallcovering</u></b>	<b><u>Maharam</u></b> <b><u>Teri Reba</u></b> <b><u>214-741-1567</u></b>	<b><u>All</u></b> <b><u>Wallcovering</u></b>
Window Shades	Designed Performance Mark McLain 972-381-9100	Mecho ThermoVeil

1.5 EXTERIOR COLOR/FINISH INSTRUCTIONS

1.5.1 Bollard Guards

Bollard Guards shall be painted in stripes of colors FSN 595 black and 13538 yellow.

1.5.2 Brick

Brick shall match Phase I, Force XXI, Soldier Development Center, Acme Brick, Rosewood, Blend 148, Velour Modular.

1.5.3 Brick Mortar

**AM#0002**

Brick mortar **shall match Phase I**, Force XXI, Soldier Development Center.

1.5.4 Control Joints on Brick

Control joints on bricks shall match Phase I, Force XXI, Soldier Development Center mortar, SGS J512

1.5.5 Doors and Frames

Doors and Frames shall match Phase I, Force XXI, Soldier Development Center

Aluminum: Medium anodized bronze finish.

Galvanized Steel: All exterior doors shall match P-5; Sherwin Williams, Fencepost White/2074.

**AM#0002**

1.5.6 Exterior Finish System

Exterior Finish System **shall match Phase I**, Force XXI, Soldier Development Center.

1.5.7 Glazing

Glazing is specified in Section 08810 GLASS AND GLAZING.

**AM#0002**

1.5.8 Handrails and Exposed Steel on Stairs

Handrails shall be painted and shall match Phase I, Force XXI, Soldier Development Center metal roofing; Berridge Manufacturing, Kynar 500, Colonial Red.

AM#0002

1.5.9 Misc. Metals

Metal panels in screen wall shall be painted to match metal roof of Phase I, Force XXI, Soldier Development Center: Berridge Manufacturing, Kynar 500, Colonial Red.

AM#0002

Expansion Joints shall match Phase I, Force XXI, Soldier Development Center, Architectural Art Mfg., Inc., Stainless Steel, 21 Finish,

AM#0002

1.5.10 Screen Walls/Coping

Screen wall shall match Phase I, Force XXI, Soldier Development Center, Acme Brick, Rosewood, Blend 148. Coping shall match Phase I, Force XXI, Soldier Development Center.

1.5.11 Sheet Metalwork

AM#0002

1.5.11.1 Coping

Color finish to shall match Phase I, Force XXI, Soldier Development Center.

AM#0002

1.5.11.2 Fascia

Color finish to shall match Phase I, Force XXI, Soldier Development Center.

AM#0002

1.5.11.3 Gutters and Downspouts

Color finish to match Phase I, Force XXI, Soldier Development Center, metal roofing Berridge Manufacturing, Kynar 500, Colonial Red.

AM#0002

1.5.11.4 Louvers

Louvers shall be painted to match Phase I, Force XXI, Soldier Development Center, metal roofing; Berridge Manufacturing, Kynar 500, Colonial Red.

1.5.12 Stairs

Exterior stair threads shall be finished exposed concrete with a broom finish.

AM#0002

1.4.131.5.13 Standing Seam Metal Roof

Color finish of standing seam metal roof shall match Phase I, Force XXI,

Soldier Development Center, Berridge Manufacturing Co., Kynar 500, Colonial Red.

#### 1.5.14 Windows

Windows shall match Phase I, Force XXI, Soldier Development Center

Aluminum: Manufacturer's standard medium anodized bronze finish.

Steel: Painted, color shall match P-5, Sherwin Williams, Fencepost White, 2074.

#### 1.6 INTERIOR COLOR/FINISH INSTRUCTIONS

All finishes shall match Phase I, Force XXI, Soldier Development Center as noted.

##### 1.6.1 Access Flooring

Shall match Phase I, Force XXI, Soldier Development Center

##### 1.6.1.1 Laminated Access Flooring

Laminated Access Flooring to be installed in G116, H120, H121, J110, J114, J118, J119, J120, J121, G226, G241, G253, H206, H206A, H207, H232, H233, J216 and shall match InterfaceAR Tec-Crete II. Color of Laminate shall match Nevamar MR-6-1, Gray Matrix.

##### 1.6.1.2 Concrete Access Flooring

Access Flooring to be carpeted will be installed in all classrooms, corridors, G119, G120, G121, H123, H124, H125, H126, G240, G248, H201, H213, H218, H234, J213, Offices, Studio, and General Offices shall match InterfaceAR Tec-Crete I.

#### AM#0002

##### 1.6.2 Acoustical Panels/Fabric

Acoustical Panels and Fabric shall match USG Silent Wall. See 1.6 Room Color and Finish Schedule for type and installation area.

#### AM#0002

##### 1.6.2.1 Cabinets

Cabinets shall be laminated faced plywood. In room G249 and H227, Kitchen Areas, the cabinet doors shall match PL-2. Cabinet shall match PL-3. The counter and shelving shall match PL-1.

##### 1.6.3 Carpet Tile

CPT-1 shall match Interface Notes:style 3662; color 3750 Mare.

CPT-2 shall match Interface Notes:style 3662; color 3760 Trinidad.

CPT-3 shall match Interface Notes:style 3662; color 3725 Red Cabbage.

CPT-4 shall match Interface Notes:style 3662; color 3746 White Chocolate.

CTP-4 shall match Phase I, Force XXI, Soldier Development Center Interface

Safari:style 4114; color 1012 Explore.

NOTE: INTERFACE PRODUCT NOTES REQUIRES A 250 YARDAGE MINIMUM. CARPET IS PROCESSED BY A FUSION BONDED PROCESS. DUE TO THIS METHOD THE INSTALLER IS TO ONLY INSTALL INDIVIDUAL AREA BY DYE LOT AND EITHER TOP OR BOTTOM SQUARES. EACH CARTON WILL HAVE DYE LOT AND TOP OR BOTTOM NOTED.

CARPET IS TO BE ORDERED A MINIMUM OF 8 WEEKS PRIOR TO INSTALLATION.

See 1.6 Room Color and Finish Schedule for placement.

**AM#0002**

1.6.4 Ceramic Tile/Grout

Shall match Phase I, Force XXI, Soldier Development Center, **Mapie 19 Pearl Grey**.

1.6.4.1 Walls

Ceramic Tile Walls in the Mens Toilet Rooms shall match be CT-2 with an accent banding pattern of CT-3 and CT-4. Walls in the Womens Toilet Rooms shall be CT-2 with an accent banding pattern of CT-5 and CT-6. See Arch. Drwgs A-52 for Ceramic Tile Patterns.

1.6.4.2 Floors

Floors in the Mens and Womens Toilet Rooms shall be CT-1

**AM#0002**

1.6.4.3 Grout

Grout for the wall and floors shall be GRT-1. **GRT-1 shall match Phase I, Force XXI, Soldier Development Center, Mapie, 19 Pearl Gray.**

1.6.5 Corner Guards

Shall match Phase I, Force XXI, Soldier Development Center.

Corner Guards shall be installed as indicated on Arch. Drwgs. and shall be Koroseal K-15, Cloud.

1.6.6 Doors

Shall match Phase I, Force XXI, Soldier Development Center

1.6.6.1 Steel doors shall be painted to match P-3; Sherwin Williams, Ermine SW 1023.

1.6.6.2 Wood Doors shall be red oak with factory coated natural finish..

1.6.7 Door Hardware

Door hardware finish is specified in Section 08700 BUILDERS' HARDWARE.

1.6.8 Elevators

Elevators shall be have stainless steel finishes and shall match Phase I, Force XXI, Soldier Development Center.

1.6.8.1 Metal Parts

Metal parts shall be Stainless Steel.

1.6.8.2 Handrails

Handrails shall be Stainless Steel.

1.6.8.3 Wall Panels

Wall panels shall be Stainless Steel.

**AM#0002**

1.6.8.4 Floor

Floor shall be **CPT-5**; Interface, Safari, 2012 Explore Modular Tile installed in a parquet pattern

1.6.8.5 Revels

Revels shall be Stainless Steel.

1.6.8.6 Ceiling

Ceiling shall be suspended stainless steel frame.

**AM#0002**

1.5.9 Acoustical Panels

Acoustical Panels shall match USG Silent Wall. **See 1.6 Room Color and Finish Schedule for color and installation area.**

1.6.9 Plastic Laminate

1.6.9.1 **AM#0002**

1.5.10.1 Counters in G234 and G235

Counters **and shelving** shall match Wilsonart **7040A-60, Figured Mahogany.**

**AM#0002**

1.6.9.2 Counter in G249

Counter **and shelving** shall match Wilsonart **D91-60, Slate Grey.**

**AM#0002**

1.6.9.3 Counter in H203

Counter shall match Wilsonart Solid Surfacing-3mm, 1500N-MG Grey Mirage.

**Shelving shall match PL-4.**

**Front of curved center of counter shall match PL-5. Front sides abutting curved center shall match PL-2.**

1.6.10 Quarry Tile

Shall match Phase I, Force XXI, Soldier Development Center

1.6.10.1 **AM#0002**

1.5.11.1 Tile

Quarry Tile shall be installed in a pattern except in room H203, which will be Tacoma 8 x 8. **Tile in room H203 shall be installed in a grid pattern. See Arch. Drwg. A-51 for installation layout.** The pattern shall consist of Dal-tile Northwest 2000 Series; Mate Tacoma-NW50, Matte Glacier-NW-85, Kodiak-NW-15. See Arch. Drwgs A-52 for pattern.

**AM#0002**

## 1.6.10.2 Grout

Grout shall be GRT-1. **GRT-1 shall match Phase I, Force XXI, Soldier Development, Mapie, 19 Pearl Grey.**

## 1.6.11 Recessed Mat

Shall match Phase I, Force XXI, Soldier Development Center

Recessed mat shall match C/S Grup Pedimat, Carpet color 9321 Pewter. Rail/Frame Architectural Bronze. Recessed mats to be installed in G101, H101, J101, J102. See Arch. Drwg. for placement.

## 1.6.12 Resilient Base

Shall match Phase I, Force XXI, Soldier Development Center

Resilient base shall be installed in all carpeted areas except H203 and tiled areas. The color shall match Johnsonite 71 Storm Cloud. Width 4"/Thickness 1/8".

## 1.6.13 Signs

Exterior signs are specified in Section \=10430=\ EXTERIOR SIGNAGE and Interior Signs in Section \=10440=\ INTERIOR SIGNAGE. Color shall match existing signage installed in General Instruction Building, Phase I.

## 1.6.14 Suspended Ceiling Grid

Shall match Phase I, Force XXI, Soldier Development Center  
Suspended Ceiling Grid shall match ceiling tiles in manufacturer, Capaul's, standard finish and shall be a standard 15/16 inch grid exposed tee system.

## 1.6.15 Stairs

Thread finish shall match QT-1. Grout to be GRT-1. Stair G102/G202 shall have tile pattern installed on the landing. See Arch. Drwg. A-52 for tile pattern.

## 1.6.16 Stairwells

Ceilings in stairwells shall match ATC-1 except for G102/G202 which shall be painted gyp-board. See 1.6 Room Color and Finish Schedule.

## 1.6.17 Toilet Partitions and Vanity Units

Toilet Partitions and Vanity Units shall match Shall match Phase I, Force XXI, Soldier Development Center, Santana Finish Onyx 733.

## 1.6.18 Vinyl Composition Tile

Vinyl Composition Tile (VCT) shall match Tarkett Expressions 2014 White Steel Dawn. See 1.6 for installation areas.

**AM#0002**

1.6.19 Vinyl Wallcovering **and Fabric Wallcovering**

See 1.6 for location of wallcoverings.

1.6.20 Walls

All interior walls of gypsum board shall be painted as indicated in 1.6 Room/Finish Schedule.

1.6.21 Window Frames (Interior, Glazing)

Steel, Painted to match P-3.

1.7 ROOM COLOR AND FINISH SCHEDULE

Area: G101 Vestibule

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: QT-6	Conc	Glass	Brick	Glass	Glass	Glass
	w/Recessed					
	Mat, Bordered					
	w/QT-1					

See Arch. Drwgs. for Quarry Tile placement

Area: G102 Stair

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: -	QT-1	PL-2	PL-2	PL-2	PL-2	P-4

Landing to have quarry tile pattern. See Arch. Drwg. A-52 for pattern

Area: G103 Classroom

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
	CPT-5					

Area: G104 Classroom

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
	CPT-5					

Area: G105 Classroom

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
	CPT-5					

Area: G106 Classroom

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
	CPT-5					

Area: G107 Classroom

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
	CPT-5					

Area: G108 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G109 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G110 Mechanical							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: -	Conc	P-3	P-3	P-3	P-3	Exposed	
						Structure	
Area: G111 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G111A Storage							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G112 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G113 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G114 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G115 Vending							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	VWC-1	VWC-1	-	P-2	ATC-1	
	CPT-5						
Area: G116 Storage							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-1	P-3	P-3	P-3	P-3	P-3	
Area: G117 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G118 Classroom							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: G119 Corridor							

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	-	P-1	Glass	ATC-1
		CPT-5	P-2	-	P-2	P-2	

Alcove entrances to classrooms to be P-1

Area: G120 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-1	-	P-1	ATC-1
		CPT-5	-	P-2	-	P-2	

Alcove entrances to classrooms to be P-1

Area: G121 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	-	P-1	-	ATC-1
		CPT-5	P-2	-	P-2	-	

Alcove entrances to classrooms to be P-1

Area: H101 Vestibule

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	QT-6	Conc w/Recessed Mat, Bordered w/QT-1	Glass	Glass	Glass	Brick	Glass

See Arch. Drwgs. for Quarry Tile placement

Area: H102 Lobby

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	QT-6	QT-1,2, 3,4,5	Glass	Glass	P-2 PL-5	Brick	P-4

See Arch. Drwgs. A-52 for Tile Pattern

Area: H103 Lobby

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2 CPT-5	VWC-2	VWC-2	VWC-2	VW-2C	ATC-1

Area: H104 Men's Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2 CT-3 CT-4	CT-2 CT-3 CT-4	CT-2 CT-3 CT-4	CT-2 CT-3 CT-4	P-4

Floor tile to be installed at a 45 degree angle

Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: H105 Women's Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2 CT-5 CT-6	CT-2 CT-5 CT-6	CT-2 CT-5 CT-6	CT-2 CT-5 CT-6	P-4

Floor tile to be installed at a 45 degree angle

Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area:	H106 Storage						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-2	VCT-1	P-3	P-3	P-3	P-3	P-3

Area:	H107 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H108 Janitors Closet						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4

See Arch. Drwg. for floor and wall tile installation.

Area:	H109 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H110 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H111 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H112 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H113 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H114 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H115 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H116 Classroom						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	H117 Janitors Closet						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4

See Arch. Drwgs. for floor and wall tile installation.

**AM#0002**

Area: H118 Vending  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: QT-6 QT-1,2 P-2 P-2 - VWC-2 ATC-1  
 3,4,5

**See Arch. Drwg. A-52 for Tile Pattern**

Area: H119 Storage  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 VCT-1 P-3 P-3 P-3 P-3 P-3

Area: H120 Commo. Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-1 P-3 P-3 P-3 P-3 P-3

Area: H121 Elec. Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-1 P-3 P-3 P-3 P-3 P-3

Area: H122 Classroom  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: H123 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 Glass P-1 - ATC-1  
 CPT-5 P-2 P-2 P-2

Alcove entrances to classroom to be P-1

Area: H124 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 - P-1 - ATC-1  
 CPT-5 P-2 P-2

Alcove entrances to classroom to be P-1

Area: H125 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-2 P-2 P-2 P-2 ATC-1  
 CPT-5

Area: H126 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-2 - P-2 Glass ATC-1  
 CPT-5 P-2

Area: H127 Mechanical Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: - Conc P-3 P-3 P-3 P-3 Exposed  
 Structure

Area: J101 Vestibule  
 Base Floor A Wall B Wall C Wall D Wall Ceiling

Matl.:	QT-6	Conc	Glass	Brick	Glass	Brick	EIFS
		w/Recessed					
		Mat, Bordered					
		w/QT-1					

See Arch. Drwgs. for Placement

Area:	J102 Vestibule						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	QT-6	Conc	Glass	Brick	Glass	Brick	EIFS
		w/Recessed					
		Mat, Bordered					
		w/QT-1					

See Arch. Drwgs. for Quarry Tile placement

Area:	J103 Lobby						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	QT-7	QT-1,2	Glass	Glass	Glass	Glass	ATC-1
		3,4,5	P-2	P-2	P-2	P-2	

See Arch. Drwg. A-52 for Quarry Tile Pattern

Area:	J104 Stair						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	-	QT-1	P-2	P-2	P-2	P-2	P-4

Area:	J105 Equip. Room						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	-	Conc	P-3	P-3	P-3	P-3	Exposed Structure

Area:	J106 Waiting Room						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-1	P-1	P-1	ATC-1
		CPT-5					

Area:	J107 Womens Room						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4
			CT-5	CT-5	CT-5	CT-5	
			CT-6	CT-6	CT-6	CT-6	

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area:	J109 Janitors Closet						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-3

See Arch. Drwgs. for tile installation.

Area:	J110 Elec. Room						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	P-3

Area:	J111 Mens Room						
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-3

CT-3            CT-3            CT-3            CT-3  
 CT-4            CT-4            CT-4            CT-4

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: J112 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	VWC-2	Glass	P-2	-	ATC-1
		CPT-5		P-2			

Area: J113 Storage

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-3	P-3	P-3	P-3	P-3
		CPT-5					

Area: J114 Commo. Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	P-3

Area: J115 Office

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-1					

Area: J117 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	P-2	P-2	P-2	ATC-1
		CPT-5					

Area: J118 Conference Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-1	P-1	P-1	P-1	ATC-1
						FP-1	

Area: J119 Conference Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-1	P-1	P-1	P-1	ATC-1
						FP-1	

Area: J120 Division - TOC

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	-	AF-1	-	P-2	P-2	P-2	ATC-1
				FP-1			

Area: J121 Brigade - TOC

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	-	AF-1	P-2	P-2	-	P-2	ATC-1
				FP-1			

Area: J123 Stair

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	-	Conc	Brick	Brick	Cast	Brick	EIFS
			Cast Stone		Stone	Cast Stone	

Area: J200 Mechanical Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	-	Conc	P-3	P-3	P-3	P-3	Exposed
							Structure

Area: J201 Storage  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 VCT-1 P-3 P-3 P-3 P-3 P-3

Area: J202 Storage Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 VCT-1 P-3 P-3 P-3 P-3 P-3

Area: J203 Lobby  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: QT-6 QT-1,2 P-2 P-2 P-2 P-2 P-2  
                   3,4,5 Glass

See Arch. Drwgs A-52 for Quarry Tile Pattern.

Area: J204 Stair  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: - QT-1 P-2 P-2 P-2 P-2 P-2

Area: J205 Dressing Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 CT-2 CT-2 CT-2 CT-2 P-4  
                   CT-5 CT-5 CT-5 CT-5  
                   CT-6 CT-6 CT-6 CT-6

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: J206 Waiting Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 CPT-1 P-1 P-1 P-1 P-1 ATC-1

Area: J207 Womens Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 CT-2 CT-2 CT-2 CT-2 P-4  
                   CT-5 CT-5 CT-5 CT-5  
                   CT-6 CT-6 CT-6 CT-6

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: J208 Conference  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 CPT-5 AP-1 AP-1 AP-1 AP-1 ATC-1

Area: J209 Janitors Closet  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 CT-2 CT-2 CT-2 CT-2 P-4

See Arch. Drwgs. for tile installation.

Area: J210 Vestibule  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 VVC-2 VVC-2 VVC-2 VVC-2 ATC-1

Area: J211 Mens Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 CT-2 CT-2 CT-2 CT-2 P-4

CT-3	CT-3	CT-3	CT-3
CT-4	CT-4	CT-4	CT-4

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: J212 Dressing Room

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4
		CT-3	CT-3	CT-3	CT-3	
		CT-4	CT-4	CT-4	CT-4	

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: J213 Corridor

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	CPT-5	P-2	P-2	P-2	P-2	ATC-1

Area: J214 Maint.

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-3	P-3	P-3	P-3	P-3
	CPT-5					

Area: J215 Studio

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	CPT-1	P-3	P-3	P-3	P-3	Exposed
	CPT-4					Structure

Field Carpet CPT-4. Border CPT-1. See attached drawing for carpet pattern.

Area: J216 Library

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-2	P-2	P-2	P-2	p-4
	CPT-5					

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Area: J217 Control Room

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	<b><u>AP-1</u></b>	<b><u>AP-1</u></b>	<b><u>AP-1</u></b>	<b><u>AP-1</u></b>	ATC-1
	CPT-1					
	CPT-4					

Field Carpet CPT-1. Border CPT-4. See attached drawing for carpet pattern.

Area: J218 General Office

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	P-2	P-2	P-2	P-2	ATC-1
	CPT-5					

**AM#0002**

Area: J219 Non-Line Edit

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	<b><u>AP-1</u></b>	<b><u>AP-1</u></b>	<b><u>AP-1</u></b>	<b><u>AP-1</u></b>	ATC-1
	CPT-1					

**AM#0002**

Area: J220 Non-Line Edit

Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
------	-------	--------	--------	--------	--------	---------

Matl.: RB-1 AF-2 AP-1 AP-1 AP-1 AP-1 ATC-1  
                     CPT-1

**AM#0002**

Area: J221 Tape Edit  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 AP-1 AP-1 AP-1 AP-1 ATC-1  
                     CPT-1

**AM#0002**

Area: J222 Audio Edit  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 AP-1 AP-1 AP-1 AP-1 ATC-1  
                     CPT-1

**AM#0002**

Area: J223 Fan Room  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 AP-1 AP-1 AP-1 AP-1 ATC-1  
                     CPT-1

**AM#0002**

Area: J224 Office  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
                     CPT-5

Area: J225 Office  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
                     CPT-5

Area: J226 Work Room  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
                     CPT-5

Area: J227 Stair  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: - Conc Brick Brick Cast Stone Brick EIFS  
                     Cast Stone Cast Stone

Area: J228 Commo  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-1 P-3 P-3 P-3 P-3 P-3

Area: J229 Elec  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-1 P-3 P-3 P-3 P-3 P-3

Area: G201 Studen Support Ctr.  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-3 P-3 P-3 P-3 ATC-1  
                     CPT-5

Area: G202 Stair  
           Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: - QT-1,2 PL-2 PL-2 PL-2 PL-2 P-4  
                     3,4,5

Landing to have Quarry Tile Pattern. See Arch. Drwg. A-52 for pattern

Area: G203 Reception  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5 Glass

Area: G204 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-2 P-2 - P-2 ATC-1  
 CPT-5

Area: G205 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G206 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G207 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G208 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G209 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G210 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G211 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G212 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G213 GC-Guidance Counsel  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: G214 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G215 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-2	-	P-2	ATC-1
		CPT-5					

Area: G216 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	-	P-1	ATC-1
		CPT-5					

Area: G217 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G218 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G219 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G220 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G221 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G222 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G223 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G224 Supply Specialist

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G225 GC-Guidance Counsel

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G226 S. S. Storage							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	P-4
		CPT-5					
Area: G227 GC-Guidance Counsel							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					
Area: G228 Corridor							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-1	-	P-1	ATC-1
		CPT-5					
Area: G229 GC-Guidance Counsel							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					
Area: G230 Gen. Area							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					
Area: G231 Testing							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5			Glass		
Area: G232 Testing							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5			Glass		
Area: G233 Testing							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5			Glass		
Area: G234 Scoring							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5	Glass		Glass		
Area: G235 Scoring							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-1		Glass		Glass	
Area: G236 General Office							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5	Glass		Glass		
<b><u>AM#0002</u></b>							
Area: G237 SESS							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	ATC-1

CPT-2

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Area: G238 ESO

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	ATC-1
		CPT-2					

Area: G239 Education Staff

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G240 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-2	-	P-2	ATC-1
		CPT-5					

Area: G241 Supply

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	P-3

Area: G242 ESS

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G243 ESS

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G244 ESS

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G245 ESS

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G246 TS ESS

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G247 Work Area

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	P-2	P-2	P-2	ATC-1
		CPT-5					

Area: G248 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	P-2	P-2	P-2	ATC-1
		CPT-5					

Area: G249 Kitchen

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling

Matl.: RB-1 AF-2 VWC-2 VWC-2 VWC-2 VWC-2 ATC-1  
 CPT-1  
 CPT-5

See attached drawing for carpet pattern.

Area: G250 Mens Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4
		CT-3	CT-3	CT-3	CT-3	CT-3	
		CT-4	CT-4	CT-4	CT-4	CT-4	

Floor tile to be installed at a 45 degree angle

Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: G251 Womens Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4
		CT-5	CT-5	CT-5	CT-5	CT-5	
		CT-6	CT-6	CT-6	CT-6	CT-6	

Floor tile to be installed at a 45 degree angle

Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: G252 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: G252A Closet

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-3	P-3	P-3	P-3	P-3
		CPT-5					

Area: G253 Work/Storage

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-2	P-2	P-2	P-2	P-4

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Area: G254 Conference Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	<b>WC-1</b>	<b>WC-1</b>	<b>WC-1</b>	<b>WC-1</b>	ATC-1
		CPT-2					

Area: G255 Gen. College-Univ. Rep

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	-	P-2	P-2	P-2	ATC-1
		CPT-5					

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Area: G256 College Rep

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	<b>AF-2</b>	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

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Area: G257 College Rep

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	<b>AF-2</b>	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

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Area: G258 College Rep  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

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Area: G259 College Rep  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

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Area: G260 Vending  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 VWC-1 VWC-1 - VWC-1 ATC-1  
 CPT-5

Area: G261 Contr / Instruction  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 - P-2 P-2 P-2 ATC-1  
 CPT-5

Area: G262 Reception Area  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-1 P-1 P-1 P-1 ATC-1  
 CPT-5

Area: H201 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 P-2 P-2 P-2 P-2 ATC-1  
 CPT-5 Glass Glass

Area: H202 Corridor  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: RB-1 AF-2 - Glass - VWC ATC-1  
 CPT-5 Block

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Area: H203 Waiting  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: QT-6 QT-1, P-1 AP-1 P-1 P-1 ATC-1  
 CPT-1,2  
 3

See Arch. Drwgs A-52 for Carpet Pattern.

Area: H204 Mens Room  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 CT-2 CT-2 CT-2 CT-2 P-4  
 CT-3 CT-3 CT-3 CT-3 CT-3  
 CT-4 CT-4 CT-4 CT-4

Floor tile to be installed at a 45 degree angle  
 Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

Area: H205 Janitors Closet  
 Base Floor A Wall B Wall C Wall D Wall Ceiling  
 Matl.: CT-7 CT-1 CT-2 CT-2 CT-2 CT-2 P-4

See Arch. Drwgs. for tile installation.

Area: H206 D.T.A.C. Storage							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	ATC-1
Area: H206A D.T.A.C. Utility							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	P-3
Area: H207 D.T.A.C. Area							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	ATC-1
Area: H208 Corridor							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	P-2	P-2	-	ATC-1
		CPT-5					
Area: H209 N.C.O Acad. Gen. Office							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	P-2	P-2	P-2	ATC-1
		CPT-5					
Area: H210 Corridor							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	P-2	P-2	P-2	ATC-1
		CPT-5					
Area: H211 Office							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-1					
Area: H212 Conference							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					
Area: H213 Corridor							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	-	P-2	-	ATC-1
		CPT-5					
Area: H214 Equipment Room							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					
Area: H215 TC Office							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					
Area: H216 1st SGT. Office							
	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: H217 COT Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H218 Corridor							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-2	-	P-2	P-2	ATC-1	
	CPT-5				Glass		
Area: H219 OPS Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H220 S-1 Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H221 Conference							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H222 SSGL Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H223 SSGL Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H224 SSGL Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H225 Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
Area: H226 SSGL Office							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1	
	CPT-5						
<b><u>AM#0002</u></b>							
Area: H227 Break Area							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	
Matl.: RB-1	AF-2	<u>VWC-2</u>	VWC-2	VWC-2	VWC-2	ATC-1	
	CPT-5						
Area: H227 Work Area							
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling	

Matl.: RB-1 AF-2 P-2 P-2 P-2 2 P-2 ATC-1  
 CPT-5

Area: H228 Resource

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	-	P-2	P-2	P-2	ATC-1
		CPT-5					

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Area: H229 Conference

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	<u>WC-3</u>	<u>WC-3</u>	<u>WC-3</u>	<u>WC-3</u>	ATC-1
		CPT-2					
		CPT-3					

Field carpet CPT-3. Border CPT-2. See attached drawings for carpet pattern.

Area: H230 ITC Classroom

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

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Area: H231 Vending

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	<u>RB-1</u>	<u>AF-2</u>	P -1	P-1	-	VWC-1	ATC-1
		<u>CPT-5</u>					

Area: H232 Elec. Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	P-3

Area: H233 Commo. Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-1	P-3	P-3	P-3	P-3	P-3

Area: H234 Corridor

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-2	Glass	P-2	Glass	ATC-1
		CPT-5					

Area: H235 Janitors Closet

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-1	CT-2	CT-2	CT-2	CT-2	P-4

See Arch. Drwgs for tile installation.

Area: H236 Learning Center

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	RB-1	AF-2	P-1	P-1	P-1	P-1	ATC-1
		CPT-5					

Area: H237 Womens Room

	Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.:	CT-7	CT-2	CT-2	CT-2	CT-2	CT-2	P-4
		CT-5	CT-5	CT-5	CT-5	CT-5	
		CT-6	CT-6	CT-6	CT-6	CT-6	

Floor tile to be installed at a 45 degree angle

Wall tile shall have a pattern. See Arch. Drwgs. A-52 for pattern.

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Area: H238 Reception						
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	<u>WC-4</u>	<u>WC-4</u>	<u>WC-4</u>	<u>WC-4</u>	ATC-1
	CPT-3					

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Area: H239 CSM Office						
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	ATC-1
	CPT-3					

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Area: H240 SGM Office						
Base	Floor	A Wall	B Wall	C Wall	D Wall	Ceiling
Matl.: RB-1	AF-2	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	<u>WC-2</u>	ATC-1
	CPT-3					

PART 2 PRODUCTS (NOT USED)

PART 3 NOT USED

-- End of Section --

SECTION 09310

CERAMIC TILE

07/98

**AMENDMENT NO. 0002**

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A108.1A	(1992) Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar
ANSI A108.1B	(1992) Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex Portland Cement Mortar
ANSI A108.4	(1992) Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile Setting Epoxy Adhesive
ANSI A108.5	(1992) Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar
ANSI A108.6	(1992) Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and Grouting Epoxy
ANSI A108.7	(1992) Electrically Conductive Ceramic Tile Installed with Conductive Dry-Set Portland Cement Mortar
ANSI A108.8	(1992) Installation of Ceramic Tile with Chemical Resistant Furan Mortar and Grout
ANSI A108.10	(1992) Installation of Grout in Tilework
ANSI A118.1	(1992) Dry-Set Portland Cement Mortar
ANSI A118.2	(1992) Conductive Dry-Set Portland Cement Mortar
ANSI A118.3	(1992) Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy and Water Cleanable Tile Setting Epoxy Adhesive
ANSI A118.4	(1992) Latex-Portland Cement Mortar
ANSI A118.5	(1992) Chemical Resistant Furan Mortars and Grouts for Tile
ANSI A118.6	(1992) Ceramic Tile Grouts

ANSI A136.1 (1992) Organic Adhesives for Installation  
of Ceramic Tile

ANSI A137.1 (1988) Ceramic Tile

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 185 (1997) Steel Welded Wire Fabric, Plain,  
for Concrete Reinforcement

ASTM C 33 (1997) Concrete Aggregates

ASTM C 144 (1997) Aggregate for Masonry Mortar

ASTM C 150 (1997) Portland Cement

ASTM C 206 (1984; R 1997) Finishing Hydrated Lime

ASTM C 207 (1991; R 1997) Hydrated Lime for Masonry  
Purposes

ASTM C 241 (1990) Abrasion Resistance of Stone  
Subjected to Foot Traffic

ASTM C 373 (1988; R 1994) Water Absorption, Bulk  
Density, Apparent Porosity, and Apparent  
Specific Gravity of Fired Whiteware  
Products

ASTM C 648 (1984; R 1994) Breaking Strength of  
Ceramic Tile

ASTM C 847 (1995) Metal Lath

ASTM C 1026 (1987; R 1996) Measuring the Resistance of  
Ceramic Tile to Freeze-Thaw Cycling

ASTM C 1027 (1984; R 1990) Determining Visible  
Abrasion Resistance of Glazed Ceramic Tile

ASTM C 1028 (1996) Determining the Static Coefficient  
of Friction of Ceramic Tile and Other Like  
Surfaces by the Horizontal Dynamometer  
Pull-Meter Method

MARBLE INSTITUTE OF AMERICA (MIA)

MIA Design Mnl (1991) Design Manual IV Dimensional Stone

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 99 (1999) Health Care Facilities

TILE COUNCIL OF AMERICA (TCA)

TCA Hdbk (1999) Handbook for Ceramic Tile  
Installation

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Tile; FIO. Setting-Bed; FIO. Mortar, Grout, and Adhesive; FIO.  
Manufacturer's catalog data.

SD-06 Instructions

Tile; FIO. Mortar and Grout; FIO.  
Manufacturers preprinted installation and cleaning instructions.

SD-09 Reports

Testing; FIO.  
Copy of results for electrical resistance tests.

SD-13 Certificates

Tile; FIO. Mortar, Grout, and Adhesive; FIO.  
Certificates indicating conformance with specified requirements. A master grade certificate shall be furnished for tile.

SD-14 Samples

Tile; GA. Accessories; FIO.  
Samples of sufficient size to show color range, pattern, type and joints.

1.3 DELIVERY AND STORAGE

Materials shall be delivered to the project site in manufacturer's original unopened containers with seals unbroken and labels and hallmarks intact. Materials shall be kept dry, protected from weather, and stored under cover in accordance with manufacturer's instructions.

1.4 ENVIRONMENTAL REQUIREMENTS

Ceramic tile work shall not be performed unless the substrate and ambient temperature is at least and rising. Temperature shall be maintained above while the work is being performed and for at least 7 days after completion of the work. When temporary heaters are used they shall be vented to the outside to avoid carbon dioxide damage to new tilework.

1.5 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a 1-year period shall be provided.

PART 2 PRODUCTS

Products shall match Phase I of Force XXI Soldier Development

## 2.1 TILE

Tile shall be standard grade conforming to ANSI A137.1. Containers shall be grade sealed. Seals shall be marked to correspond with the marks on the signed master grade certificate. Tile shall be impact resistant with a minimum breaking strength for wall tile of and for floor tile in accordance with ASTM C 648. Tile for cold climate projects shall be rated frost resistant by the manufacturer as determined by ASTM C 1026. Water absorption shall be .50 maximum percent in accordance with ASTM C 373. Floor tile shall have a minimum coefficient of friction of .60 wet and dry in accordance with ASTM C 1028. Floor tile shall comply with A>D>A> recommendations for accessible routes.

### 2.1.1 Ceramic Mosaic Tile

Ceramic mosaic tile and trim shall be unglazed porcelain gloss and matte with sharply formed face. Tile size shall be . Color shall be as specified in Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

### 2.1.2 Quarry Tile

Quarry tile and trim shall be unglazed with smooth surface. Tile shall be . Color shall be as specified in Section: 09000 BUILDING COLOR AND FINISH SCHEDULE.

## 2.2 WATER

Water shall be potable.

## 2.3 MORTAR, GROUT, AND ADHESIVE

Mortar, grout, and adhesive shall conform to the following:

### 2.3.1 Dry-Set Portland Cement Mortar

ANSI A118.1.

### 2.3.2 Latex-Portland Cement Mortar

ANSI A118.4.

### 2.3.3 Ceramic Tile Grout

ANSI A118.6; latex-portland cement grout.

### 2.3.4 Organic Adhesive

ANSI A136.1, Type I.

### 2.3.5 Tile Backer Board

Tile backer units shall be gypsum core with fiberglass mat surfaces (2 sides) with water and vapor retardant on face side.

## PART 3 EXECUTION

### 3.1 PREPARATORY WORK AND WORKMANSHIP

Surface to receive tile shall be inspected and shall conform to the requirements of ANSI A108.1A or ANSI A108.1B for surface conditions for the type setting bed specified and for workmanship. Variations of surface to be tiled shall fall within maximum values shown below:

TYPE	WALLS	FLOORS
Dry-Set Mortar	1/8 inch in 8 ft	1/8 inch in 10 ft
Organic Adhesives	1/8 inch in 8 ft	1/16 inch in 3 ft
Latex portland cement mortar	1/8 inch in 8 ft	1/8 inch in 10 ft
Epoxy	1/8 inch in 8 ft	1/8 inch in 10 ft

### 3.2 GENERAL INSTALLATION REQUIREMENTS

Tile work shall not be started until roughing in for mechanical and electrical work has been completed and tested, and built-in items requiring membrane waterproofing have been installed and tested. Floor tile installation shall not be started in spaces requiring wall tile until after wall tile has been installed. Tile in colors and patterns indicated shall be applied in the area shown on the drawings. Tile shall be installed with the respective surfaces in true even planes to the elevations and grades shown. Special shapes shall be provided as required for sills, jambs, recesses, offsets, external corners, and other conditions to provide a complete and neatly finished installation. Tile bases and coves shall be solidly backed with mortar.

### 3.3 INSTALLATION OF WALL TILE

Wall tile shall be installed in accordance with the TCA Hdbk, method W244-99.

#### 3.3.1 Dry-Set Mortar and Latex-Portland Cement Mortar

Dry-set or Latex-portland cement shall be used to install tile in accordance with ANSI A108.5. Latex portland cement shall be used when installing porcelain ceramic tile. Thin-bed set waterproofing shall be equal or similar to Dal-tile, Dal-Seal TS or an equal.

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#### 3.3.2 Organic Adhesive

Organic adhesive installation of ceramic tile shall conform to ANSI A108.4.

#### AM#0002

#### 3.3.3 Furan Mortar and Grout

Furan mortar and grout installation shall conform to ANSI A108.8.

### 3.4 INSTALLATION OF FLOOR TILE

Floor tile shall be installed in accordance with TCA Hdbk, method F122-99 (Waterproof Membrane). Thin-set with membrane shall equal or similar to Dal-tile, Dal-Seal CIS or an equal.

#### 3.4.1 [Enter Appropriate Subpart Title Here] 3.4.2 Latex-Portland Cement

Latex-portland cement mortar shall be used to install tile directly over properly cured, plane, clean concrete slabs in accordance with ANSI A118.4.

Latex portland cement shall be used when installing porcelain ceramic tile.

**FOR QUARRY TILE INSTANTION, GROUT RELEASE AND PENATRATING SEALER AS RECOMMENDED BY MANUFACTURER TO BE EQUAL TO OR SIMILAR TO DAL-TILE/AQUA MIX.**

#### 3.4.3 Ceramic Tile Grout

Ceramic Tile grout shall be prepared and installed in accordance with ANSI A118-6. PRIOR TO GROUTING QUARRY TILE, A GROUT RELEASE AND PENATRATING SEALER AS RECOMMENDED BY MANUFACTURER TO BE EQUAL OR SIMILAR TO DAL-TILE, AQUA MIX.

#### 3.4.4 Tile Backer Board

Tile backer units shall be installed in accordance with Manufacturer's printed instructions.

#### 3.5 EXPANSION JOINTS

Joints shall be formed as indicated and sealed as specified in Section 07900 JOINT SEALING.

##### 3.5.1 Walls

Expansion joints shall be provided at control joints in backing material. Wherever backing material changes, an expansion joint shall be installed to separate the different materials.

##### 3.5.2 Floors

Expansion joints shall be provided where tile abuts restraining surfaces such as perimeter walls, curbs and columns and at intervals of each way in large interior floor areas and each way in large exterior areas or areas exposed to direct sunlight or moisture.

#### 3.6 CLEANING AND PROTECTING

Upon completion, tile surfaces shall be thoroughly cleaned in accordance with manufacturer's approved cleaning instructions. Acid shall not be used for cleaning glazed tile. Floor tile with factory mixed grout shall be cleaned in accordance with instructions of the grout manufacturer. After the grout has set, tile wall surfaces shall be given a protective coat of a noncorrosive soap or other approved method of protection. Tiled floor areas shall be covered with building paper before foot traffic is permitted over the finished tile floors. Board walkways shall be laid on tiled floors that are to be continuously used as passageways by workmen. Damaged or defective tiles shall be replaced.

-- End of Section --

SECTION 09680

CARPET

09/96

AMENDMENT NO. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

AATCC TM 16	(1993) Test Method: Colorfastness to Light
AATCC TM 134	(1991) Test Method: Electrostatic Propensity of Carpets
AATCC TM 165	(1993) Test Method: Colorfastness to Crocking: Carpets - AATCC Crockmeter Method
AATCC TM 174	(1993) Test Method: Antimicrobial Activity Assessment of Carpet

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 297	(1993) Rubber Products - Chemical Analysis
ASTM D 418	(1993; R 1997) Pile Yarn Floor Covering Construction
ASTM D 1423	(1992) Twist in Yarns by the Direct-Counting Method
ASTM D 1667	(1997) Flexible Cellular Materials - Vinyl Chloride Polymers and Copolymers (Closed-Cell Foam)
ASTM D 3278	(1996) Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus
ASTM D 3676	(1996a) Rubber Cellular Cushion Used for Carpet or Rug Underlay
ASTM E 648	(1997) Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source

CARPET AND RUG INSTITUTE (CRI)

CRI 104	(1996) Commercial Carpet Installation Standard
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CODE OF FEDERAL REGULATIONS (CFR)

16 CFR 1630

Standard for the Surface Flammability of  
Carpet and Rugs (FF 1-70)

GERMANY INSTITUTE FOR STANDARDIZATION (DEUTSCHES INSTITUT FÜR  
NORMUNG) (DIN)

DIN 54318

(1986) Machine-Made Textile Floor  
Coverings; Determination of Dimensional  
Changes Due to the Effects of Varied Water  
and Heat Conditions; Identical with ISO  
2551 Edition 1981

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

### SD-01 Data

Carpet and Accessories; FIO.

Manufacturer's catalog data and printed documentation stating physical characteristics, durability, resistance to fading, and flame resistance characteristics for each type of carpet material and installation accessory.

### SD-04 Drawings

Installation; FIO.

Three copies of drawings indicating areas receiving carpet, carpet types, textures and patterns, direction of pile, location of seams, and locations of edge molding.

### SD-06 Instructions

Carpet and Accessories; FIO.

Three copies of the manufacturer's printed installation instructions for the carpet, including preparation of substrate, seaming techniques, and recommended adhesives and tapes.

### SD-09 Reports

Moisture and Alkalinity Tests; FIO.

Three copies of test reports of moisture and alkalinity content of concrete slab stating date of test, person conducting the test, and the area tested.

### SD-13 Certificates

Carpet and Accessories; FIO.

Certificates of compliance from a laboratory accredited by the National Laboratory Accreditation Program of the National Institute of Standards and Technology attesting that each type of carpet and carpet with cushion material conforms to the standards specified.

SD-14 Samples

Carpet and Accessories; GA.

- a. Carpet: Two "Production Quality" samples of each carpet proposed for use, showing quality, pattern, and color specified.
- b. Vinyl or Aluminum Moldings: Two pieces of each type at least

SD-19 Operation and Maintenance Manuals

Carpet and Accessories; GA.

Three copies of carpet manufacturer's maintenance instructions describing recommended type of cleaning equipment and material, spotting and cleaning methods, and cleaning cycles.

1.3 REGULATORY REQUIREMENTS

Carpet and adhesives shall bear the Carpet and Rug Institute (CRI) Indoor Air Quality (IAQ) label. Carpet type bearing the label will indicate that the carpet has been tested and meets the criteria of the CRI IAQ Carpet Testing Program, and minimizes the impact on indoor air quality.

1.4 DELIVERY AND STORAGE

Materials shall be delivered to the site in the manufacturer's original wrappings and packages clearly labeled with the manufacturer's name, brand name, size, dye lot number, and related information. Materials shall be stored in a clean, dry, well ventilated area, protected from damage and soiling, and shall be maintained at a temperature above for 2 days prior to installation.

1.5 ENVIRONMENTAL REQUIREMENTS

Areas in which carpeting is to be installed shall be maintained at a temperature above for 2 days before installation, during installation, and for 2 days after installation. A minimum temperature of shall be maintained thereafter for the duration of the contract. Traffic or movement of furniture or equipment in carpeted area shall not be permitted for 24 hours after installation. Other work which would damage the carpet shall be completed prior to installation of carpet.

1.6 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a one-year period shall be provided.

1.7 EXTRA MATERIAL

Extra material from same dye lot consisting of uncut carpet tiles shall be provided for future maintenance. A minimum of 4 percent of total of each carpet type, pattern, and color shall be provided.

PART 2 PRODUCTS

**AM#0002**

2.1 CARPET TYPE

**CPT-5; Patterned Modular Carpet Tile and shall match Phase I,  
Force XXI, Soldier Development  
CPT-1,2,3,4; Solid Color Modular Carpet Tile**

Carpet shall be first quality; free of visual blemishes, streaks, poorly dyed areas, fuzzing of pile yarn, spots or stains, and other physical and manufacturing defects. Carpet materials and treatments shall be reasonably nonallergenic and free of other recognized health hazards. All grade carpets shall have a static control construction which gives adequate durability and performance.

2.1.1 Physical Characteristics

Carpet 5 shall comply with the following:

- a. Carpet Construction: Tufted Sheared Pattern Loop and Solid Loop with Lifetime Antimicrobial.
- b. Type: Modular tile with 0.15 percent growth/shrink rate in accordance with DIN 54318.
- c. Pile Type: Level-loop.
- d. Pile Fiber: Commercial 100% Solution Dyed with VIP premium branded nylon.
- e. Pile or Wire Height: Minimum .095 in accordance with ASTM D 418.
- f. Yarn Ply: Minimum 2 in in accordance with ASTM D 1423.
- g. Gauge or Pitch: Minimum 1/10 in accordance with ASTM D 418.
- j. Pile Density: Minimum 6400.
- k. Dye Method: Soluton dyed

**Carpet 1,2,3,4 shall comply with the following:**

- a. **Carpet Construction Fusion Bonded**
- b. **Type: Modular tile 19.69 x 19.69 inches square with .10 percent growth/shrink rate in accordance with DIN 54318.**
- c. **Pile Type: Cut Pile**
- d. **Pile Fiber: Commercial 100% 6,6 Nylon**
- e. **Pile or Wire Height: Minimum .128 inch in accordance with ASTM D 418**
- f. **Yarn Ply: Minimum 2 in in accordance with ASTM D 1423**
- g. **Gauge or Pitch: Minimum 10.6 per inch in accordance with ASTM D 418**
- j. **Pile Density: Minimum 7300**

**k. Dye Method: 100% Stock Dye**

1. Backing Materials: Primary backing materials shall be .  
Secondary backing to suit project requirements shall be those customarily used and accepted by the trade for each type of carpet, except when a special unitary back designed for gluedown is provided.

2.1.2 Performance Requirements

- b. Flammability and Critical Radiant Flux Requirements: Carpet shall comply with 16 CFR 1630. Carpet in corridors and exits shall have a minimum average critical radiant flux of 0.45 watts per square centimeter when tested in accordance with ASTM E 648.
- c. Tuft Bind: Tuft bind force required to pull a tuft or loop free from carpet backing shall be a minimum 9 pound force.
- d. Additional Performance Characteristics:
  - (1) Antimicrobial: Nontoxic antimicrobial treatment in accordance with AATCC TM 174, Part I (qualitative), guaranteed by the carpet manufacturer to last the life of the carpet.
- e. Colorfastness to Crocking: Dry and wet crocking shall comply with AATCC TM 165 and shall have a minimum rating of step 4 on the AATCC Color Transference Chart for all colors.
- f. Colorfastness to Light: Colorfastness to light shall comply with AATCC TM 16 and shall have a minimum 4 grey scale rating after 40 hours.
- g. Delamination Strength: Delamination strength for tufted carpet with a secondary back shall be minimum of 2.5 lb./inch in accordance with \-ASTM D 3936 -\.

2.2 ADHESIVES AND CONCRETE PRIMER

Release adhesive for modular tile carpet shall be as recommended by the carpet manufacturer. Adhesives flashpoint shall be minimum 140 degrees F in accordance with ASTM D 3278.

2.3 MOLDING

Vinyl molding shall be heavy-duty and designed for the type of carpet being installed. Floor flange shall be a minimum 2 inches wide. Color shall match resilient base.

2.4 COLOR, TEXTURE, AND PATTERN

Color, texture, and pattern shall be in accordance with Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

PART 3 EXECUTION

### 3.1 SURFACE PREPARATION

Carpet shall not be installed on surfaces that are unsuitable and will prevent a proper installation. Holes, cracks, depressions, or rough areas shall be repaired using material recommended by the carpet or adhesive manufacturer. Floor shall be free of any foreign materials and swept broom clean. Before beginning work, subfloor shall be tested with glue and carpet to determine "open time" and bond.

### 3.2 MOISTURE AND ALKALINITY TEST

Concrete slab shall be tested for moisture content and excessive alkalinity in accordance with CRI 104. The moisture content shall not exceed a hygrometer reading of 65 percent.

### 3.3 PREPARATION OF CONCRETE SUBFLOOR

Installation of the carpeting shall not commence until concrete substrate is at least 90 days old. The concrete surfaces shall be prepared in accordance with instructions of the carpet manufacturer. Type of concrete sealer, when required, shall be compatible with the carpet.

### 3.4 INSTALLATION

Installation shall be in accordance with the manufacturer's instructions and CRI 104. Edges of carpet meeting hard surface flooring shall be protected with molding. Installation shall be in accordance with the molding manufacturer's instructions.

#### 3.4.1 Modular Tile Installation

Modular tiles shall be installed with release adhesive and shall be snugly jointed together. Tiles shall be laid in an alternating pattern with accessibility to the subfloor where required.

### 3.5 CLEANING AND PROTECTION

#### 3.5.1 Cleaning

After installation of the carpet, debris, scraps, and other foreign matter shall be removed. Soiled spots and adhesive shall be removed from the face of the carpet with appropriate spot remover. Protruding face yarn shall be cut off and removed. Carpet shall be vacuumed clean.

#### 3.5.2 Protection

The installed carpet shall be protected from soiling and damage with heavy, reinforced, nonstaining kraft paper, plywood, or hardboard sheets. Edges of kraft paper protection shall be lapped and secured to provide a continuous cover. Traffic shall be restricted for at least 45 hours. Protective covering shall be removed when directed by the Contracting Officer.

### 3.6 REMNANTS

Non-retained scraps shall be removed from site.

-- End of Section --



SECTION 09720

WALLCOVERINGS

01/98

AMENDMENT NO. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 423	(1990a) Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
ASTM E 84	(1996a) Surface Burning Characteristics of Building Materials
ASTM F 793	(1993) Standard Classification of Wallcovering by Durability Characteristics

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Wallcovering and Accessories; FIO.

Manufacturer's descriptive data, documentation stating physical characteristics, flame resistance, mildew and germicidal characteristics.

SD-06 Instructions

Installation; FIO.

Preprinted installation instructions for wallcovering and accessories.

Maintenance; FIO.

Preprinted cleaning and maintenance instructions for wallcovering and accessories.

SD-13 Certificates

Wallcovering; FIO.

Manufacturer's statement attesting that the product furnished meets or exceeds specification requirements. The statement must; be dated after the award of the contract, state Contractor's name and address, name the

project and location, and list the requirements being certified.

SD-14 Samples

Wallcovering and Accessories; GA.

Three samples of each indicated type, pattern, and color of wallcovering. Samples of wall covering shall be minimum 5 X 7 inches and of sufficient size to show pattern repeat.

1.3 DELIVERY AND STORAGE

Materials shall be delivered to the site in manufacturers original unopened containers labeled with manufacturers name, pattern, texture, size and related information. Materials shall be stored in accordance with the manufacturer's instructions in a clean dry ventilated area with temperature maintained above for two days prior to installation.

1.4 ENVIRONMENTAL REQUIREMENTS

Areas to receive wallcovering shall be maintained at a temperature above for 7 days before, during, and 7 days after application.

1.5 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a one-year period shall be provided.

PART 2 PRODUCTS

2.1 WALLCOVERINGS

Wallcoverings shall be material designed specifically for the specified use. The wallcovering shall contain a non-mercury based mildewcide. The wallcovering shall be type made without the use of cadmium based stabilizers. Wallcovering shall have a Class A flame spread rating of 0-25 and smoke development rating of 0-50 when tested in accordance with ASTM E 84.

2.1.1 Vinyl Wallcovering Type II

Vinyl wallcovering shall be a vinyl coated woven or nonwoven fabric with germicidal additives and shall conform to ASTM F 793, Category V Type II, (13.1 to 24 ounces)] total weight per squarefoot and width of 54 inches.

AM#0002

2.1.2 Fabric Wallcovering Type II

Fabric wallcovering shall be a woven fabric with paper or acrylic backing and shall be colorfast, stain, and soil resistant. Fabric wallcovering shall meet or exceed the following:

a. Face fiber content:

AP-1: 100% Polyester

AP-2, WC-1, WC-2, WC-3: 100% Polyolefin

WC-4: 97% Spun Polyolefin, 3% Nylon.

b. Total weight: .

AP-2: 15.5  
WC-1: 12.15  
WC-2: 12.9  
WC-3: 13.2  
WC-4: 11.7

c. Width: .

2.2 PRIMER AND ADHESIVE

Primer and adhesive shall be of a type recommended by the wallcovering manufacturer and shall contain a non-mercury based mildewcide. Adhesive shall be strippable type. Adhesive to install cap shall be of a type recommended by the manufacturer of the wainscot cap.

2.3 COLOR, TEXTURE, AND PATTERN

Color, texture, and pattern shall be in accordance with Section 09000 BUIDLING COLOR AND FINISH SCHEDULE.

PART 3 EXECUTION

3.1 EXAMINATION

Contractor shall inspect all areas and conditions under which wallcoverings are to be installed. Contractor shall notify in writing of any conditions detrimental to the proper and timely completion of the installation. Work will proceed only when conditions have been corrected and accepted by the installer.

3.2 SURFACE PREPARATION

Wallcovering shall not be applied to surfaces that are rough, that contain stains that will bleed through the wallcovering, or that are otherwise unsuitable for proper installation. Cracks and holes shall be filled and rough spots shall be sanded smooth. Surfaces to receive wallcovering shall be thoroughly dry. Plaster surfaces shall age at least 30 days prior to installation of vinyl wallcoverings. Interior surfaces of exterior masonry walls shall be sealed to prevent moisture penetration, then primed with a wallcovering primer in accordance with the manufacturer's instructions. Moisture content of plaster, concrete, and masonry shall be tested with an electric moisture meter and reading shall be not more than 5 percent. Masonry walls shall have flush joints. Concrete and masonry walls shall be coated with a thin coat of joint compound or cement plaster as a substrate preparation. To promote adequate adhesion of wall lining over masonry walls, the walls shall be primed as recommended by the wall lining manufacturer. Surface of walls shall be primed as required by manufacturer's instructions to permit ultimate removal of wallcovering from the wall surface. Primer shall be allowed to completely dry before adhesive application.

3.3 INSTALLATION

3.3.1 [Enter Appropriate Subpart Title Here]3.3.2 Vinyl and Fabric Wallcovering

Wallcovering shall be installed in accordance with the manufacturer's installation instructions. Glue and adhesive spillage shall be immediately removed from wallcovering face and seams with a remover recommended by the

manufacturer. After the installation is complete, the fabric wallcovering shall be vacuumed with a ceiling to floor motion.

#### 3.4 CLEAN-UP

Upon completion of the work, wallcovering shall be left clean and free of dirt or soiling. Surplus materials, rubbish, and debris resulting from the wallcovering installation shall be removed and area shall be left clean.

-- End of Section --

SECTION 10101

MISCELLANEOUS ITEMS

07/1998

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

THE ALUMINUM ASSOCIATION (AA)

AA-03 (Sep. 1980, 7th Ed.) Designation System  
for Aluminum Finishes

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 543 (1981) Slate Blackboards

ASTM E 814 (1983) Fire Tests of Through-Penetration  
Fire Stops

PORCELAIN ENAMEL INSTITUTE (PEI)

PEI S 100 (1965) Architectural Porcelain Enamel on  
Steel for Exterior Use.

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Manufacturer's Catalog Data; FIO.

SD-04 Drawings

Fabrication/Erection/Installation Drawings; FIO.

Drawings shall be submitted for each product listed in PART 2 PRODUCTS. Drawings shall show sizes, details of construction, method of construction, method of assembling, hardware materials, colors, method of mounting, location of each item, specifications for surface preparation and installation of items, and all other details pertinent to installation. For each product, drawings shall identify all parts by name and material. Materials fabricated or delivered to the job site before approval of the

drawings shall be subject to rejection.

#### SD-14 Samples

Presentations Cabinets; FIO.

Unless otherwise indicated, samples shall be full size, taken from manufacturer's stock, and be complete as required for installation. After approval, samples may be installed in the work provided each sample is clearly identified and its location recorded. Provide one sample(s) of each product listed in PART 2 PRODUCTS unless otherwise indicated below:

Each type writing and tack board surface, square.

Full-size wall clips or anchoring devices.

Each type of frame, long.

Each type of trim and chalk trough, long.

Each accessory, full size.

### 1.3 DELIVERY AND STORAGE

Materials and products shall be delivered to the site in the manufacturer's original unopened containers with brand name and type clearly marked. Materials and products shall be carefully handled and stored in dry, watertight enclosures.

### 1.4 FIELD MEASUREMENTS

Field measurements shall be taken prior to the preparation of drawings and fabrication to ensure proper fits.

## PART 2 PRODUCTS

Products shall match Phase I of Force XXI Soldier Development Center

### 2.1 GENERAL

Supplementary parts necessary to complete each product item shall be included even though such work is not definitely shown or specified. The Contractor shall furnish to the proper trades all anchors, sockets, or fastenings required for securing items to other construction. Details and specifications of items for which standard products are available are representative guides of requirements for such items. Standard products, generally meeting such requirements, will be accepted, if details of construction and installation are approved by the Contracting Officer.

#### 2.1.1 Metal Thickness

Gages of sheet iron and steel specified are U. S. Standard for sheet and plate. Extruded sections shall be at least 3.125 mm thick, unless otherwise specified or shown on the drawings.

#### 2.1.2 Aluminum Frames

Aluminum frames, trim, and accessories shall be fabricated of 6063-T5 or T6 extruded aluminum alloy. Corners and connections shall be hairline miter or butt joints. Exposed aluminum surfaces shall have an integrally colored

medium bronzesatin finish. Satin finish shall be chemically etched medium matte anodic coating, Class II Architectural, 0.4 mil thick, in accordance with AA-03.

## 2.2 PRESENTATION CABINETS

Presentation cabinets shall be a hardwood solids and veneer of mahogany. Cabinet size shall be 72-inches wide, 48-inches high and mounted as indicated on the drawings. Presentation cabinets shall be as located on the drawings indicated by "screen". Presentation cabinets shall feature a porcelain-steel writing surface, cork tackable display surfaces with a flip chart, mounted on inside of right hand door, and a concealed projection screen mounted at the top of the interior of the cabinet.

## 2.3 TELEVISION WALL MOUNTS

Television wall mounts shall be model TVWY35txr-BR with VCR 4-BK tray as manufactured by "Bretford Manufacturing, Inc." (800-521-9614) or approved equal. This is a wall mounted Yoke model to house a 30-35-inch television.

Base of tray shall be a minimum of 72-inches above finish floor. TV wall mounts shall be to the left of the presentation cabinets as located on the drawings (indicated by "screen"). Attachment of assembly shall be as recommended by manufacturer.

## 2.4 FIRE EXTINGUISHER CABINETS & CABINET/MOUNTING BRACKETS

### 2.4.1 Fire Extinguisher Cabinet (FEC)

Metal fire extinguisher cabinets shall be furnished and installed where shown on the drawings or specified. Cabinets to be located in fire-rated walls shall be fire-rated type, fabricated in accordance with ASTM E 814, and shall be listed by an approved testing agency for 1- hour non-combustible wall systems. The testing agency's seal shall be affixed to each fire-rated cabinet. Cabinets shall be of the recessed type suitable for extinguishers. Box and trim shall be of heavy gage rolled steel. Door shall be a rigid frame with full length piano type hinge and double strength (DSA) glass panel. Door and box shall be prime-coated inside and outand field painted with P-4 paint as indicated in Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

### 2.4.2 Fire Extinguisher Bracket (FE)

Provide a fire extinguisher bracket of 16 gauge steel, red baked enamel with spring type band and retaining clip as located on the drawings.

### 2.4.3 Fire Extinguisher

Provide a 10 pound ABC multi-purpose dry chemcidal fire extinguisher at locations shown on drawings for all fire extinguisher cabinets and brackets. The extinguisher shall meet NFPA codes governing fire

extinguishers, and shall carry a UL and FM approval.

## 2.5 PUBLIC TELEPHONE ENCLOSURES

Public Telephone Enclosures shall match style and tupe of Model 006015/Trim-Line, Phillips, Brooks, and Gladwin. Finish shall be brushed stainless steel exterior with a black molded interior. Interior shall be lighted. The cabinet shall have a narrow depth; 24-inches width by 10-inches depth by 42.75 inches in height. Bottom of enclosure shall be 29.5 inches A.F.F. except for one in area E & F (ea. floor) shall be mounted 54-inches to coin slot to meet ADA requirements.

## 2.6 CYCLORAMA TRACK

Provide Model 316W, standard duty curved walk-along track as manufactured by H & H Specialties Inc, South El Monte, Ca. or an approved equal. Track shall be 2-1/2" I-beam with 1" top, intermediate and bottom flanges, extruded from 6063-T5 aluminum. Provide unspliced in lengths up to 24-feet. Provide single carriers, spaced on 12" centers, constructed of two nylon-tired ball bearing wheels fastened parallel to formed steel carrier body with swivel hook for attachment of curtain. Attach Nylatron wear strips at contact points between carriers and track to minimize friction and noise. Install two neoprene bumpers between carries to further reduce noise. Master carriers shall be two single carrier assemblies joined by a steel connecting plate. All steel components shall be zinc plated to resist corrosion.

## 2.7 PIPE HANGERS (Studio LIGHTING)

Provide Model 300-HI single pipe hangers as manufactured by Altman Stage Lighting Co. Inc. of Yonkers, N.Y. or an approved equal. Pipe hangers shall be designed to accomodate 1 1/2" standard black pipe (see Section 5500; Misc. Metals) and the electrical connection strips (see Section 16416; Stufio Lighting System).

# PART 3 EXECUTION

## 3.1 PREPARATION AND INSTALLATION

Mounting surface preparation and product installation shall be in accordance with the product manufacturer's written recommendations.

## 3.2 BULLETIN BOARDS

Bulletin boards in presentation cabinets shall be mounted with the top edge not higher than above the floor.

## 3.3 CYCLORAMA TRACK

Suspend track on 5-foot maximum centers with two-piece clamp hanger formed from 11 gauge steel. Install end stop with cord support at each track end. Where lengths exceed 24-feet, connect tracks with 8-inch long, two-piece splicing clamp of 8 guage steel. See details on sheets A15 and S19.

## 3.4 PIPE HANGERS (Studio Lighting)

Suspend pipe hangers according to manufactures reccomendation and as detailed on sheets A15 and S19.Text

### 3.5 CLEANING

Following installation, dirty or discolored surfaces of the products shall be cleaned, with the products left free of defects. Products that are damaged or improperly installed shall be removed and reinstalled or replaced with new products as directed.

-- End of Section --

SECTION 10160

TOILET PARTITIONS AND VANITY UNITS

07/98

AMENDMENT NO. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

COMMERCIAL ITEM DESCRIPTIONS (CID)

CID A-A-60003 Partitions, Toilet, Complete

1.2 SYSTEM DESCRIPTION

Toilet partition system, including toilet enclosures, room entrance screens, and urinal screens, shall be a complete and usable system of panels, hardware, and support components. The partition system shall be provided by a single manufacturer and shall be a standard product as shown in the most recent catalog data. The partition system shall be as shown.

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Toilet Partition System; FIO.  
Vanity Unit; FIO.

Manufacturer's technical data and catalog cuts including installation and cleaning instructions.

SD-04 Drawings

Toilet Partition System; FIO.

Vanity Unit; FIO.

Drawings showing plans, elevations, details of construction, hardware, reinforcing, fittings, mountings, and anchorings.

SD-14 Samples

Toilet Partition System; GA.  
Vanity Unit; FIO.  
Manufacturer's standard color charts and color samples.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

Components shall be delivered to the jobsite in the manufacturer's original packaging with the brand, item identification, and project reference clearly marked. Components shall be stored in a dry location that is adequately ventilated; free from dust, water, or other contaminants; and shall have easy access for inspection and handling.

#### 1.5 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a 1 year period shall be provided.

### PART 2 PRODUCTS

PRODUCTS SHALL MATCH PHASE I OF FORCE XXI SOLDIER DEVELOPMENT

#### **AM#0002**

##### 2.1 TOILET ENCLOSURES

Toilet enclosures shall conform to CID A-A-60003, Type I, **Style A, floor supported and overhead braced**. Width, length, and height of toilet enclosures shall be as shown. Finish surface of panels shall be Finish 5, High-Density Polyethylene. Panels indicated to receive toilet paper holders or grab bars as specified in Section 10800 TOILET ACCESSORIES, shall be prepared for mounting of the items required. Grab bars shall withstand a bending stress, shear stress, shear force, and a tensile force induced by 1112 N . Grab bars shall not rotate within their fittings.

##### 2.2 VANITY UNIT

Vanity tops, backsplashes, skirts, plastic angle brackets, center supports or end supports shall be a standard 24" wide and mounting heights per drawings. Finish surface of vanity unit shall be solid plastic finish.

##### 2.3 URINAL SCREENS

Urinal screens shall conform to CID A-A-60003, Type III, Style A, floor supported. Finish surface of screens shall be Finish 5, High-Density Polyethylene. Width and height of urinal screens shall be as shown.

##### 2.4 HARDWARE

Hardware for the toilet partition system and vanity unit shall conform to \-FS RR-P-1352-\ for the specified type and style of partitions. Hardware finish shall be highly resistant to alkalis, urine, and other common toilet room acids. Hardware shall be a standard specified by manufacturer. Hardware shall include a coat hook mounted (5 feet above finish floor) on the interior surface of every door. Mounting heights and locations shall be as indicated on drawings.

##### 2.5 COLORS

Color of finishes for toilet partition system components and vanity units shall be as specified in Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

##### 2.6 SOLID PLASTIC PANELS

Solid plastic panels, including doors and pilasters, shall be made of high density polymer resins, or solid phenolic material, with integral color.

Exposed finish surfaces shall have a smooth-matte finish and shall be water-resistant, non-absorbent, unaffected by steam and high humidity, warp-resistant, and resistant to staining and marking with pens, pencils, or other writing devices. Surfaces shall be cleanable with a damp cloth and soap or household detergents. Panels shall be not less than 3/4-inch thick and shall meet the following minimum performance criteria:

Property	Standard	Performance
Density	ASTM D 1505	0.96+ g/cc
Tensile Strength	ASTM D 638	4400 psi
Elongation	ASTM D 638	Greater than 600%
Izod Impact	ASTM D 256	7.0 foot-lbs/inch of notch
Tensile Impact	ASTM D 1822	120 foot-lbs/inch
Brittleness Temp	ASTM D 746	Less than -76 degrees
Hardness	ASTM D 2240	68 Shore D
Flexural Modulus	ASTM D 256	220,000 psi
Flammability Index/ Flame Spread	ASTM E 84	0 to 75 for 1-inch thick material

### PART 3 EXECUTION

#### 3.1 INSTALLATION

Toilet partitions shall be installed straight and plumb in accordance with approved manufacturer's instructions with horizontal lines level and rigidly anchored to the supporting construction. Where indicated, anchorage to walls shall be by toggle-bolting. Drilling and cutting for installation of anchors shall be at locations that will be concealed in the finished work.

Vanity tops, side splashes, backsplashes, skirts support plastic componenets and hardware shall be in accordance with the manufacturer's standad recommendations. All parts shall be installed in a substantial manner, straight, level, and plumb. No evidence of drilling, cutting, or patching shall be visible in the finished work.

#### 3.2 ADJUSTING AND CLEANING

Doors shall have a uniform vertical edge clearance of approximately and shall rest open at approximately 30 degrees when unlatched. Baked enamel finish shall be touched up with the same color of paint that was used for the finish. Toilet partitions shall be cleaned in accordance with approved manufacturer's instructions and shall be protected from damage until accepted.

Surfaces of vanity unit shall be cleaned after installation and left free of imperfections.

-- End of Section --

SECTION 10260

WALL AND CORNER PROTECTION

12/95

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ALUMINUM ASSOCIATION (AA)

AA DAF-45 (1980; R 1993) Designation System for Aluminum Finishes

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 167 (1996) Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip

ASTM B 221 (1996) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM D 256 (1993a) Determining the Pendulum Impact Resistance of Notched Specimens of Plastics

ASTM D 635 (1996) Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position

ASTM E 84 (1996a) Surface Burning Characteristics of Building Materials

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM AMP 500 Manual (1988) Metal Finishes Manual for Architectural and Metal Products

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80 (1995) Fire Doors and Fire Windows

SOCIETY OF AMERICAN AUTOMOTIVE ENGINEERS (SAE)

SAE J1545 (1986) Instrumental Color Difference Measurement for Exterior Finishes, Textiles and Color Trim

## 1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

### SD-01 Data

Corner Guards; FIO.

Manufacturer's descriptive data, catalog cuts, installation instructions, and recommended cleaning instructions.

### SD-04 Drawings

Corner Guards; FIO.

Drawings indicating locations and typical elevations of each type of item. Drawings shall show vertical and horizontal dimensions, full size sections, thickness of materials, and fastening details.

### SD-13 Certificates

Corner Guards; FIO.

Statements attesting that the items comply with specified fire and safety code requirements.

### SD-14 Samples

Finish; GA.

Manufacturer's standard samples indicating color and texture of materials requiring color and finish selection.

## 1.3 DELIVERY AND STORAGE

Materials shall be delivered to the project site in manufacturer's original unopened containers with seals unbroken and labels and trademarks intact. Materials shall be kept dry, protected from weather and damage, and stored under cover. Materials shall be stored at approximately for at least 48 hours prior to installation.

## 1.4 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a 1 year period shall be provided.

## PART 2 PRODUCTS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

### 2.1 GENERAL

To the maximum extent possible, corner guards shall be the standard products of a single manufacturer and shall be furnished as detailed. Drawings show general configuration of products required, and items differing in minor details from those shown will be acceptable.

### 2.1.1 Resilient Material

Resilient material shall consist of high impact resistant extruded acrylic vinyl, polyvinyl chloride, or injection molded thermal plastic and shall conform to the following:

#### 2.1.1.1 Minimum Impact Resistance

Minimum impact resistance shall be when tested in accordance with ASTM D 256, (Izod impact, ft. lbs per sq inch notched).

#### 2.1.1.2 Fire Rating

Fire rating shall be Class 1 when tested in accordance with ASTM E 84, having a maximum flame spread of 25 and a smoke developed rating of 450 or less. Material shall be rated self extinguishing when tested in accordance with ASTM D 635. Material shall be labeled and tested by an approved nationally known testing laboratory.

#### 2.1.1.3 Integral Color

Colored components shall have integral color and shall be matched in accordance with SAE J1545 to within plus or minus 1.0 on the CIE-LCH scales.

## 2.2 CORNER GUARDS

### 2.2.1 Resilient Corner Guards

Corner guard units shall be flush mounted type, radius formed to profile shown. Corner guards shall extend from floor to ceiling. Mounting hardware, cushions, and base plates shall be furnished. Assembly shall consist of a snap-on corner guard formed from high impact resistant resilient material, minimum thick, mounted on a continuous aluminum retainer. Extruded aluminum retainer shall conform to ASTM B 221, alloy 6063, temper T5 or T6. Flush mounted type guards shall act as a stop for adjacent wall finish material. Factory fabricated end closure caps shall be furnished for top and bottom of surface mounted corner guards. Flush mounted corner guards installed in fire rated wall shall maintain the rating of the wall. Insulating materials that are an integral part of the corner guard system shall be provided by the manufacturer of the corner guard system. Exposed metal portions of fire rated assemblies shall have a paintable surface.

## 2.3 TRIM, FASTENERS AND ANCHORS

Vinyl trim, fasteners and anchors shall be provided for each specific installation as shown.

## 2.4 FINISH

### 2.4.1 Aluminum Finish

Finish for exposed aluminum shall be medium bronze. Concealed aluminum shall be mill finish.

### 2.4.2 Resilient Material Finish

Finish for resilient material shall be velour texture with colors as indicated in Section 09000: BUILDING COLOR AND FINISH SCHEDULE.

2.5 ADHESIVES

Adhesive for resilient material shall be in accordance with manufacturers recommendations.

2.6 COLOR

Color shall be in accordance with Section 09000: BUILDING COLOR AND FINISH SCHEDULE..

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Corner Guards

Material shall be mounted at location indicated in accordance with manufacturer's recommendations.

-- End of Section --

SECTION 10270

RAISED FLOOR SYSTEM

01/97

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A208.1 (1993) Particleboard

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 84 (1996a) Surface Burning Characteristics of Building Materials

ASTM E 648 (1997) Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source

CEILINGS AND INTERIOR SYSTEMS CONTRACTORS ASSOCIATION (CISCA)

CISCA-01 (1987) Recommended Test Procedures for Access Floors

DEPARTMENT OF COMMERCE (DOC)

DOC PS 1 (1996) Voluntary Product Standard - Construction and Industrial Plywood

FEDERAL SPECIFICATIONS (FS)

FS SS-T-312 (Rev B; Int Am 1; Notice 1) Tile, Floor: Asphalt, Rubber, Vinyl, and Vinyl Composition

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO)

ICBO-01 (1994) Uniform Building Code (3 Vol.)

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA LD 3 (1995) High-Pressure Decorative Laminates

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 75 (1995) Protection of Electronic Computer/Data Processing Equipment

NFPA 99 (1996; Errata) Health Care Facilities

UNDERWRITERS LABORATORIES (UL)

UL 779 (1995) Electrically Conductive Floorings

## 1.2 SYSTEM DESCRIPTION

Raised flooring shall be installed at the location and elevation and in the arrangement shown on the drawings. The floor system shall be of the stringerless type, complete with all supplemental items, and shall be the standard product of a manufacturer specializing in the manufacture of raised floor systems.

### 1.2.1 Floor Panels

Floor panel testing shall be conducted in accordance with CISCA-01. When tested as specified, all deflection and deformation measurements shall be made at the point of load application on the top surface of the panel. Floor panels shall be capable of supporting [4450] [5563] [6675] [\_\_\_\_\_] N concentrated load without deflecting more than 2.03 mm and without permanent deformation in excess of 0.25 mm in any of the specified tests. Floor panels shall be capable of supporting [11.97] [14.36] [16.76] [\_\_\_\_\_] KPa per square meter uniform live load without deflection more than 1.02 mm. Floor panels shall be capable of supporting [2670] [4450] [\_\_\_\_\_] N rolling load without deflecting more than 1.02 mm and without permanent deformation in excess of 0.51 mm. In accordance with CISCA-01, the permanent deformation limit under rolling load shall be satisfied in all of the specified tests. In the specified tests, the permanent deformation shall be measured after 10 passes with Wheel 1 and after 10,000 passes with Wheel 2.

### 1.2.2 Pedestals

Pedestals shall be capable of supporting a 22.24 kN axial load without permanent deformation.

### 1.2.3 Pedestal Adhesive

Adhesive shall be capable of securing a pedestal in place with sufficient bonding strength to resist an overturning force of 113 Nm.

### 1.2.4 Bond Strength of Factory Installed Floor Covering

Bond strength of floor covering shall be sufficient to permit handling of the panels by use of the panel lifting device, and to withstand moving caster loads up to 4.45 kN, without separation of the covering from the panel.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Raised Floor System; FIO.

Manufacturer's descriptive data, catalog cuts, and installation instructions. The data shall include information about any design and production techniques, procedures and policies used to conserve energy, reduce material, improve waste management or incorporate green building/recycled products into the manufacturer of their components or products. Cleaning and maintenance instructions shall be included. Design calculations which demonstrate that the proposed floor system meets requirements for seismic loading, prepared in accordance with ICBO-01. Certified copies of test reports may be submitted in lieu of calculations.

#### SD-04 Drawings

Raised Floor System; GA.

Drawings showing layout of the work, sizes and details of components, details at floor perimeter, bracing to resist seismic or other lateral loads, typical cutout details including size and shape limitation, method of grounding, description of shop coating, and installation height above structural floor.

#### SD-09 Reports

Tests; FIO. Testing of Electrical Resistance; FIO.

Certified copies of test reports from an approved testing laboratory, attesting that the proposed floor system components meet the performance requirements specified.

#### SD-13 Certificates

Raised Floor System; FIO. Materials; GA.

Certificate of compliance attesting that the raised floor system meets specification requirements.

#### SD-14 Samples; Floor Panels; GA. Pedestals; GA.

One sample of each panel type and suspension system proposed for use.

### 1.4 DELIVERY, STORAGE, AND HANDLING

Materials shall be stored in original protective packaging in a safe, dry, and clean location and shall be handled in a manner to prevent damage. Panels shall be stored at temperatures between 4 and 32 degrees C, and between 20 percent and 70 percent humidity.

### 1.5 EXTRA MATERIALS

Spare floor panels (of each type floor), spare complete pedestal assemblies, and spare stringers shall be furnished at the rate of one space for each 100 or fraction thereof required.

### 1.6 OPERATION AND MAINTENANCE MANUALS

Provide maintenance instructions for proper care of the floor panel surface. When conductive flooring is specified, require submittal of maintenance instructions to identify special cleaning and maintenance requirements to maintain "conductivity" properties of the panel finish.

## PART 2 PRODUCTS

[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

## 2.1 FLOOR PANELS

## 2.1.1 Panel Construction

Except for edge panels, panel size shall be [600 by 600] [\_\_\_\_\_] mm. Finished panels shall be within a 0.25 mm tolerance of the nominal size, and shall be square within a tolerance of 0.38 mm measured corner-to-corner. The top surface of panels shall be flat within a 0.51 mm tolerance measured corner-to-corner. Panels shall be permanently marked to indicate load rating and model number. Each panel corner shall be drilled and countersunk to accept a fastener for direct attachment to the pedestal. Contractor to provide in addition, 1% of the total carpeted floor panels that are installed and also 1% of floor panels with laminate finish that are installed for surplus.

## 2.1.1.1 Concrete Panels

Concrete panels shall be of lightweight structural concrete with either structural reinforcing or a die-formed, electro-galvanized steel bottom pan. All concrete surfaces including those resulting from field cuts shall be sealed with the manufacturer's standard sealer before covering the surfaces with other materials.

## 2.1.2 Floor Covering

Floor panels shall be surfaced with materials firmly bonded in place with waterproof adhesive. The electrical resistance shall remain stable over the life expectancy of the floor covering. Any antistatic agent used in the manufacturing process shall be an integral part of the material, and shall not be surface applied. Bolt heads or similar attachments shall not rise above the traffic surface.

## 2.1.2.1 High Pressure Laminate

High pressure laminate surfacing shall conform to NEMA LD 3, Grade HW 62.

## 2.1.2.2 Carpet

Carpet surfacing shall be field installed. Refer to Section 09680 - CARPET.

## 2.1.3 Edge Strip

Panels shall be edged with extruded vinyl edge strips secured in place with mechanical interlock or adhesive bond, or shall be of a replaceable type. Top of strip shall be approximately 3 mm wide, and shall be flush with the floor surfacing.

## 2.1.4 Accessories

Floor panels shall be furnished with framed openings and grommets as shown in the Electrical Drawings. All openings shall be executed by the factory or the contractor as recommended by the raised floor manufacturer.

## 2.1.5 Resilient Base

Base shall be as specified in Section 09650 - RESILIENT FLOORING..

#### 2.1.6 Lifting Device

Each individual room shall be provided with one floor panel lifting device standard with the floor manufacturer. A minimum of two devices shall be furnished.

### 2.2 PANEL SUPPORT SYSTEM

#### 2.2.1 Pedestals

Pedestals shall be of steel or aluminum or a combination thereof. Ferrous materials shall have a factory-applied corrosion-resistant finish. Pedestal base plates shall provide a minimum of 10,300 square millimeter of bearing surface and shall be a minimum of 3 mm thick. Pedestal shafts shall be threaded to permit height adjustment within a range of approximately 50 mm, to permit overall floor adjustment within plus or minus 2.5 mm of the required elevation, and to permit leveling of the finished floor surface within 1.56 mm in 3000 mm in all directions. Locking devices shall be provided to positively lock the final pedestal vertical adjustments in place. Pedestal caps shall interlock with panels to preclude tilting or rocking of the panels.

### 2.3 FASCIA

Aluminum or steel fascia plates shall be provided at open ends of floor, at sides of ramps and steps, and elsewhere as required to enclose the free area under the raised floor. Steel plates shall have a factory applied baked enamel finish. Finish on aluminum plates shall be as standard with the floor system manufacturer. Fascia plates shall be reinforced on the back, and shall be supported using the manufacturer's standard lateral bracing at maximum 1200 mm on center. Trim, angles, and fasteners shall be provided as required.

### 2.4 TESTS

Raised flooring shall be factory tested by an independent laboratory at the same position and maximum design elevation and in the same arrangement as shown on the drawings for installation so as to duplicate service conditions as much as possible.

#### 2.4.1 Load Tests

Floor panel, stringer, and pedestal testing shall be conducted in accordance with CISCA-01.

### 2.5 Test for Bond Strength of Factory Installed Floor Covering

The test panel shall be supported on pedestals and stringers as specified for the installed floor. The supports shall be braced as necessary to prevent sideways movement during the test. A test load of 4.45 kN shall be imposed on the test assembly through a hard plastic caster 75 mm in diameter and 25 mm wide. The caster shall be rolled completely across the center of the panel. The panel shall withstand 20 passes of the caster with no delamination or separation of the covering.

### 2.6 COLOR

Color shall be in accordance with Section 09000 - BUILDING COLOR AND FINISH SCHEDULE.

### PART 3 EXECUTION

#### 3.1 INSTALLATION

The floor system shall be installed in accordance with the manufacturer's instructions and with the approved detail drawings. Open ends of the floor, where the floor system does not abut wall or other construction, shall have positive anchorage and rigid support. Areas to receive raised flooring shall be maintained between 16 and 32 degrees C, and between 20 percent and 70 percent humidity for 24 hours prior to and during installation.

##### 3.1.1 Preparation for Installation

The area in which the floor system is to be installed shall be cleared of all debris. Structural floor surfaces shall be thoroughly cleaned and all dust shall be removed. Floor coatings required for dust or vapor control shall be installed prior to installation of pedestals only if the pedestal adhesive will not damage the coating. If the coating and adhesive are not compatible, the coating shall be applied after the pedestals have been installed and the adhesive has cured.

##### 3.1.2 Pedestals

Pedestals shall be accurately spaced, and shall be set plumb and in true alignment. Base plates shall be in full and firm contact with the structural floor, and shall be secured to the structural floor with adhesive.

##### 3.1.3 Auxiliary Framing

Auxiliary framing or pedestals shall be provided around columns and other permanent construction, at sides of ramps, at open ends of the floor, and beneath panels that are substantially cut to accommodate utility systems. Special framing for additional lateral support shall be as shown on the approved detail drawings.

##### 3.1.4 Panels

The panels shall be interlocked with supports in a manner that will preclude lateral movement. Perimeter panels, cutout panels, and panels adjoining columns, stairs, and ramps must be fastened to the supporting components to form a rigid boundary for the interior panels. Floors shall be level within 2 mm measured with a 250 mm straightedge in all directions. Cut edges of steel and wood-core panels shall be painted as recommended by the panel manufacturer. Cut edges of composite panels shall be coated with a silicone rubber sealant or with an adhesive recommended by the panel manufacturer. Extruded vinyl edging shall be secured in place at all cut edges of all panel cut-outs to prevent abrasion of cables. Where the space below the floor is a plenum, cutouts for conduit and similar penetrations shall be closed using self-extinguishing sponge rubber.

##### 3.1.5 Fascia Plates

Exposed floor ends and exposed openings of ramps and stairs shall be covered with aluminum or steel closures.

### 3.1.6 Repair of Zinc Coating

Zinc coating that has been damaged, and cut edges of zinc-coated components and accessories, shall be repaired by the application of a galvanizing repair paint. Areas to be repaired shall be thoroughly cleaned prior to application of the paint.

## 3.2 CLEANING AND PROTECTION

### 3.2.1 Cleaning

The space below the completed floor shall be free of all debris. Before any traffic or other work on the completed raised floor is started, the completed floor shall be cleaned in accordance with the floor covering manufacturer's instructions.

### 3.2.2 Protection

Traffic areas of raised floor systems shall be protected with a covering of building paper, fiberboard, or other suitable material to prevent damage to the surface. Cutouts shall be covered with material of sufficient strength to support the loads to be encountered. Plywood or similar material shall be placed on the floor to serve as runways for installation of heavy equipment. Protection shall be maintained until the raised floor system is accepted.

-- End of Section --

SECTION 10800

TOILET ACCESSORIES

08/98

Amendment No. 0002

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 1036 (1991) Flat Glass

COMMERCIAL ITEM DESCRIPTIONS (CID)

CID A-A-2380 (Rev A) Dispenser, Paper Towel

CID A-A-2398 (Rev B) Curtain, Shower and Window (Metric - SI)

1.2 SUBMITTALS

Government approval is required for submittals with a "GA" designation, submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Data

Finishes; FIO. Accessory Items; FIO.

Manufacturer's descriptive data and catalog cuts indicating materials of construction, fasteners proposed for use for each type of wall construction, mounting instructions, operation instructions, and cleaning instructions.

SD-14 Samples

Finishes; GA. Accessory Items; FIO.

One sample of each accessory proposed for use. Approved samples may be incorporated into the finished work, provided they are identified and their locations noted.

1.3 DELIVERY, STORAGE, AND HANDLING

Toilet accessories shall be wrapped for shipment and storage, delivered to the jobsite in manufacturer's original packaging, and stored in a clean, dry area protected from construction damage and vandalism.

1.4 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a 1 year period shall be provided.

PART 2 PRODUCTS  
[AM0002] Products shall match Phase I of Force XXI Soldier Development Center

2.1 MANUFACTURED UNITS

Toilet accessories shall be provided where indicated. Each accessory item shall be complete with the necessary mounting plates and shall be of sturdy construction with corrosion resistant surface.

2.1.1 Anchors and Fasteners

Anchors and fasteners shall be capable of developing a restraining force commensurate with the strength of the accessory to be mounted and shall be suited for use with the supporting construction. Exposed fasteners shall have oval heads, be of tamperproof design, and shall be finished to match the accessory.

2.1.2 Finishes

Except where noted otherwise, finishes on metal shall be provided as follows:

Metal	Finish
Stainless steel	No. 4 satin finish
Carbon steel, copper alloy, and brass	Chromium plated, bright

2.2 ACCESSORY ITEMS

Accessory items shall conform to the requirements specified below.

2.2.1 Grab Bar (GB)

Grab bar shall be 18 gauge, 32 mm OD Type 304 stainless steel. Grab bar shall be form and length as indicated. Exposed mounting flange shall have mounting holes concealed on the lip of the flange. Grab bar shall have satin finish. Installed bars shall be capable of withstanding a 2.225 kN vertical load without coming loose from the fastenings and without obvious permanent deformation. Space between wall and grab bar shall be 38 mm.

2.2.2 Glass Mirrors (MG/PTD/SD)

Paper towel dispenser shall conform to \-CID A-A-2380-\, of not less than 0.269 inch Type 304 stainless steel, and shall be recessed mounted with exposed surfaces satin finish. Dispenser shall have a towel compartment and a mirror door and liquid soap dispenser. Locking mechanism shall be tumbler key lock. One piece seamless 22 gauge flange provided with 1/4" return for rigidity. 1/4" float/plate mirror door mounted on a continuous stainless steel piano hinge and provided with a tumbler lock. Door provided with door retainer. Shelf provided with raised front lip. Cabinet is all welded construction.

2.2.3 Mirror, Tilt (HC/HT/PTD/SD)

Tilt mirror shall be surface mounted and shall provide full visibility for persons in a wheelchair. Mirror shall have [adjustable] [fixed] tilt, extending at least 100 mm from the wall at the top and tapering to 25 mm at the bottom. Size shall be in accordance with the drawings. Glass for mirrors shall conform to ASTM C 1036 and paragraph Glass Mirrors.

#### 2.2.4 Sanitary Napkin Disposer (SND)

Sanitary napkin disposal shall be constructed of Type 304 stainless steel with removable leak-proof receptacle for disposable liners. Fifty disposable liners of the type standard with the manufacturer shall be provided. Receptacle shall be retained in cabinet by tumbler lock. Disposer shall be provided with a door for inserting disposed napkins, and shall be partition mounted, double access.

#### 2.2.5 Shelf, Metal, Light Duty (SMLD)

Light duty metal shelf shall be supported between brackets or on brackets. Brackets shall prevent lateral movement of the shelf. Shelf shall be [450 mm ] [600 mm ] long. Shelf and brackets shall be stainless steel.

#### 2.2.6 Soap and Grab Bar Combination, Recessed (SGR)

Soap and grab bar combination shall be recessed type and shall be Type 304 stainless steel, [bright polished finish] [satin finish].

#### 2.2.7 Towel Bar (TB)

Towel bar shall be stainless steel with a minimum thickness of 0.38 mm. Bar shall be minimum 19 mm diameter, or 16 mm square. Finish shall be [bright polish] [satin].

#### 2.2.8 Towel Pin (TP)

Towel pin shall have concealed wall fastenings, and a pin integral with or permanently fastened to wall flange. Maximum projection shall be 100 mm . Design shall be consistent with design of other accessory items. Finish shall be [bright polish] [satin].

#### 2.2.9 Toilet Tissue Dispenser (TTD)

Toilet tissue holder shall be [Type II - surface mounted] [Type III - recess mounted] with two rolls of standard tissue [mounted horizontally] [stacked vertically]. Cabinet shall be [carbon steel, bright chromium plated finish] [stainless steel, satin finish].

#### 2.2.10 Waste Receptacle (WR)

Waste receptacle shall be Type 304 stainless steel, designed for recessed mounting. Reuseable liner, of the type standard with the receptacle manufacturer, shall be provided. Capacity shall be not less than 1.3 . Receptacles with push doors and doors for access to the waste compartment shall have continuous hinges. Locking mechanism shall be tumbler key lock.

#### 2.2.11 Seat Cover Dispenser (SCD)

Toilet seat cover dispensers shall be Type 304 stainless steel and shall be surface mounted. Dispenser shall have a minimum capacity of 500 seat

covers.

2.2.12 Coat Holder (CH)

Coat holder shall be concealed surface mounted single coat holder hook. Holder shall be type 304 stainless steel satin finish.

2.2.13 Mop Holder (MH)

Mop holder shall be surface mounted fabricated of 18 gauge type 304 satin finish stainless steel. Mop holder consist of 4 holders, spring activated rubber cams on plated steel retainers.

PART 3 EXECUTION

3.1 INSTALLATION

Toilet accessories shall be securely fastened to the supporting construction in accordance with the manufacturer's approved instructions. Accessories shall be protected from damage from the time of installation until acceptance.

3.2 CLEANING

Material shall be cleaned in accordance with manufacturer's recommendations. Alkaline or abrasive agents shall not be used. Precautions shall be taken to avoid scratching or marring of surfaces.

-- End of Section --